EMOTIONAL INTELLIGENCE AND SELECTED HR OUTCOMES IN MENTAL HEALTHCARE SECTOR: AN EXPLORATION OF INTER LINKAGES

Thesis
Submitted to the University of Calicut
for the award of the degree of
Doctor of Philosophy in Management

MUHAMMAD ABDUL RASHEED K.P.

Under the Supervision of

Dr. B. JOHNSON
Professor

DEPARTMENT OF COMMERCE AND MANAGEMENT STUDIES
SCHOOL OF BUSINESS STUDIES
University of Calicut
Kerala

June 2019

DEPARTMENT OF
COMMERCE AND MANAGEMENT STUDIES

UNIVERSITY OF CALICUT

Dr. B. Johnson
Professor

Mob : 7034 390 249
Email: bensavier01@gmail.com

Certificate

This is to certify that the thesis entitled 'Emotional Intelligence and Selected HR Outcomes in Mental Healthcare Sector: An Exploration of Inter Linkages' carried out by Mr. Muhammad Abdul Rasheed KP for the award of Degree of Doctor of Philosophy in Management from University of Calicut is a record of bonafide research work done under my supervision and guidance. No part of the thesis has been submitted for any degree, diploma, fellowship or other similar title or recognition before.

Calicut University

Dr. B. Johnson
(Supervising Teacher)

DEPARTMENT OF
COMMERCE AND MANAGEMENT STUDIES

UNIVERSITY OF CALICUT

Dr. B. Johnson
Professor

Mob : 7034 390 249
Email: bensavier01@gmail.com

Certificate

This is to certify that the thesis entitled 'Emotional Intelligence and Selected HR Outcomes in Mental Healthcare Sector: An Exploration of Inter Linkages' carried out by Mr. Muhammad Abdul Rasheed KP for the award of Degree of Doctor of Philosophy in Management from University of Calicut is a record of bonafide research work done under my supervision and guidance. No part of the thesis has been submitted for any degree, diploma, fellowship or other similar title or recognition before.

It is also certified that the reports of the adjudicators of this thesis have not been suggested any modification/correction of the work. Soft copy attached is the same as that of the resubmitted revised copy.

Calicut University

Dr. B. Johnson
(Supervising Teacher)

Declaration

I hereby declare that the thesis entitled **'Emotional Intelligence and Selected HR Outcomes in Mental Healthcare Sector: An Exploration of Inter Linkages'** done under the guidance and supervision of Dr. B. Johnson is a record of bonafide research work done by me and that no part of the thesis has been presented for the award of any degree, diploma, fellowship or other similar title or recognition before.

Calicut University

Muhammad Abdul Rasheed K.P.
Research scholar

ACKNOWLEDGEMENTS

First and foremost, all praise to Almighty who alone made this accomplishment possible. I seek his mercy, favour and forgiveness.

I wish to thank my supervising teacher and guide, Professor Dr. B. Johnson. I am sincerely obliged and thankful for the knowledge, understanding and the compassion that he has imparted to me and my ideas. He has offered sincere guidance, support and unwavering patience throughout this process. I have been blessed to have such a sincere guide to help me navigate the dissertation work.

I am grateful to my parents, teachers and family members for their extreme moral support, encouragement and patience during the course of my studies and academic career. No proper development can ever take place without proper guidance and care of parents and family.

I wish to thank all teachers in the department, Dr. MA Joseph (Head of the Dept.), Dr. B Vijaya Chandran Pillai, Dr. Abubacker Siddique, Dr. EK Satheesh, Dr. AK Sarada and Dr. P Mohan for their assistance and support.

I am deeply thankful to Wilmar B. Schaufeli, Dr. Wong Chi Sum and Meyer & Allen for they granted me permission for using the academic packages of WLEIS, TCM Employee Commitment survey and UWES for academic purpose.

I express my gratitude to the librarians Mr. Habeeb Koya Thangal, Abulla Moozhikkal and Moideen Kutty and assisting staffs of CHMK library and DCMS department library for granting me access to the essential reference materials. I would like thank office staffs of DCMS for their support and help.

I remain grateful to all the mental healthcare employees who spared their valuable time in filling up the questionnaire and provided necessary data for the study.

I extend my thanks to all full time research scholars, part time scholars and FIPs of DCMS who shared their best and provided mental and physical support.

Finally, I am sincerely obliged to all my friends who helped me directly or indirectly in the completion of this study.

CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AC	:	Affective Commitment
CC	:	Continuance Commitment
CFA	:	Confirmatory Factor Analysis
EFA	:	Exploratory Factor Analysis
EI	:	Emotional Intelligence
EII	:	Emotional Intelligence Inventory
EQ	:	Emotional Quotient
GFI	:	Goodness-of-Fit Index
IQ	:	Intelligence Quotient
KSMHA	:	Kerala State Mental Health Authority
MEIS	:	Multifactor Emotional Intelligence Scale
MSCEIT	:	Mayer-Salovey-Caruso Emotional Intelligence Test
NC	:	Normative Commitment
OC	:	Organisational Commitment
OEA	:	Others' Emotion Appraisal
RMSEA	:	Root-Mean-Square Error Approximation
ROE	:	Regulation of Emotion
SEA	:	Self Emotion Appraisal
TEIQue	:	Trait Emotional Intelligence Questionnaire
UOE	:	Use of Emotion
UWES	:	Utrecht Work Engagement Scale
WLEIS	:	Wong and Law Emotional Intelligence Scale

CHAPTER 1

INTRODUCTION

Contents **Page No.**

1.1 Introduction

In the present technological era, occupational health psychology, positive psychology, wellbeing, organisational psychology, positive organisational behaviour and the like topics have been the routine matters of any organisation. These fields of study mainly focus on positively oriented human resource strengths and psychological capacities that can be managed, measured and developed for the improvement of performance in complex work environments. Emotional Intelligence which includes the ability to understand, manage and regulate the emotions in self and others, Organisational Commitment that guarantees the commitment of employees towards an organisation and Work Engagement that ensures the engagement of employees in the assigned duties are leading topics in these fields that helps in creating positive and healthy work environments. This study is an attempt to examine the application of these emerging human resource topics to the mental healthcare sector that needs more advanced HR policies and strategies for better delivery of services.

Emotional intelligence is the ability to acquire and apply the acquired knowledge from our emotions and the emotions of other people. EI is considered as a psychological construct having wide linkage and relationships with a variety of subjects like business management and human resource management. Peter Salovey and John Mayer have originally used the term ‘emotional intelligence’ in a published work. They defined EI initially as “a form of intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions” (Salovey and Mayer, 1990). However it is highly studied as a subject in industrial psychology mainly concentrated on human resources and their skills.

Emotional Intelligence is increasingly relevant to all HR practices because the EI principle is thought as an effective tool to assess and understand people’s attitudes, behaviours, management styles, and interpersonal skills. It is highly considered in many human resource processes such like recruitment, selection, planning, management development, customer relations and training. Emotionally

intelligent people display better physical and mental health, higher levels of wellbeing and vital satisfaction, less risk conducts such as drug use and better interpersonal and social relations in the professional and personal contexts. Emotional intelligence is more important than intelligent quotient, the traditional method for measuring intelligence. Emotional quotient consists of both interpersonal and intrapersonal intelligences. Scores of researches have concluded that people with high emotional quotient generally perform better in work than those with higher intelligent quotient.

Organisational Commitment is a multidimensional psychological construct that refers to employees' loyalty to the organisation, their willingness to work on behalf of the organisation, degree of their goal and value congruency with the organisation and their desire to maintain membership. It is "a psychological state that characterises an employee's relationship with an organisation and has implications for the decision to continue membership of the organisation" (Meyer & Allen, 1991). Over the years, the concept of Organisational Commitment has become popular among the researchers of organisational and industrial psychology (Cohen, 2003). It is an intriguing trait and much researched topic in the fields of management, organisational behaviour and Human Resource Management. In the path of conceptualization the emerging model in this field of study is the three component model proposed by Meyer and Allen (1996). It is consisted of three valid components as Affective Commitment, Continuance Commitment and Normative Commitment. Affective commitment is the emotional attachment of employees to his organisation and his involvement in the organisation. Continuance Commitment means the commitment of employees towards on organisation that is related with calculating the costs for .leaving a specific organisation. Normative Commitment refers to the feelings of obligation expressed by an employee in relation to the customised norms and values..

Pareek (2004:165) defines organisational commitment as "a person's feeling with regard to continuing his or her association with the organisation, acceptance of the values and goals of the organisation, and willingness to help the organisation

achieve such goals and values". In the past decade, the effect of the organisational commitment has increased significantly in the field of management development (Pool and Pool, 2007). Organisational commitment is found to be empirically related to economical concepts like job performance (Mowday, Porter, & Dubin, 1974; Steers, 1977), absenteeism (Sagie, 1998), turnover intentions and cognitions (e.g., Angle & Perry, 1981; Porter, Steers, Mowday, & Boulian, 1974), job satisfaction (Bluedorn, 1982; Eby, Freeman, Rush & Lance, 1999; Tett & Meyer, 1993) and to more recently developed psychological constructs like organisational citizenship (O'Reilly & Chatman, 1986; Shore & Wayne, 1993). Research studies conducted on organisational commitment have indicated that highly committed employees will engage in organisational citizen behaviour that will result in higher work motivation and better performance that may be beneficial to the organisation (Chang et al., 2007).

Work Engagement conceptually is an independent and distinct construct as a positive opposite of burnout. It is a dynamic and energetic work-related state of mind. According to Schaufeli, Salanova, et al. (2002), work engagement is defined as "a positive, fulfilling, work-related state of mind that is characterised by vigor, dedication, and absorption" (Schaufeli, Salanova, et al., 2002). Vigor is defined as the energy and mental resilience of an employee in his work, his willingness to invest the effort in his work, and his ability to be persistent in the face of difficulties. Dedication refers to the feeling of enthusiasm, importance, significance, inspiration, and pride in performing a work role. Absorption refers to being fully concentrated and deeply engrossed in one's work, and it is characterised by the sense of time passing quickly and difficulty in detaching oneself from work. Work engaged employees are therefore enthusiastic and energetic, involved and committed to their work, and they are often so intense in their work that it feels as if time is flying. Work Engagement is positively correlated with many positive job outcomes like organisational commitment and inversely correlated with negative job outcomes and job stress.

Many studies have undertaken related with emotional intelligence, organisational commitment and work engagement in different contexts and various cultural settings where most of them are undergone in foreign countries. Therefore these constructs have considerable vibrant literature with plenty of antecedents, consequences, contributing factors and correlated variables and constructs. Business and non-business organisations can utilize this literature to apply and practice these emerging constructs in their work environments for better results in terms of work related wellbeing.

1.2 Rationale of the Study

Health is not merely an absence of illness but is a positive sense of well being physically, mentally and socially. Mental health thus is an integral component of total health and mental health is not merely an absence of mental illness. It is a balance between all aspects of life likes emotional, economical, spiritual, as well as physical which shows how we feel and think about our self, others and how we face life's situations. Employees with a sense of having well-being or mental health realises their own potentials and they easily cope with the difficulties and stresses they face in the life. They work hard to make positive and meaningful contributions towards their community. Good mental health depends mainly on the ability to enjoy life, manage social relations, develop and sustain healthy inter personal relationships and be aware of needs and preferences of others.

According to world health report (2001) 20% of all patients diagnosed by primary health care professionals have one or more mental disorders and mental disorders account for 10.5% of the global burden of disease (GBD) in 1990, 12% in 2000 and this will increase to 15% by 2020. The prevalence of psychiatry disorders in Kerala accounts for 10% and prevalence of sever psychiatric disorders accounts for 20 per 1000 people. Neurosis and psychosomatic disorders accounts for 20-30 per 1000 Population. In addition Kerala contribute to 10.1% of all the suicides occurring in India though our population constitutes only 3.4% of the Nation’s population. During the period 1991 - 2002 incidence of suicides in Kerala rose at a compound growth of 4.61% as against the population growth rate of 2.2%. In 2003,

among other States, Kerala is having the highest suicidal rate (29.7 per one lakh) which is two and half times higher than the National average (11.2 per one lakh population). Kerala stands first in the rate of suicide among other states for the 8th time. The Alcohol and other drugs related problems are also high in Kerala. The per capita consumption of Alcohol is also highest in Kerala. In the case of divorce rate Kerala is far ahead. All these data show the severity of the Mental Health problems prevailing in Kerala.

Despite appreciable increase in scientific advancements and material success, statistics show that the rate of mental health disturbances in Kerala is increasing day by day at an alarming rate. The more the material comfort of life people enjoy the greater the mental health of people deteriorating progressively. The major mental health problems prevalent in Kerala are mental retardation, suicide, aggression on others, alcoholism, divorce, domestic violence, use of drugs, attack on women and children, marital breakdown, severe psychological trauma, trend of school college dropouts and the like. National mental health program documents mentions that 20 to 30 million Indians are in need of some formal mental healthcare. Kerala State Mental Health Authority (KSMHA) reveals that 10% of Keralites suffer from any kind of mental illness where 2% of them are with severe mental problems. According to the report of CAG as much as 5.86% of Kerala population suffers from mental illness against a national average of 2%. Kerala State Crime Records Bureau states that the mental illness is the reason behind 19% of suicides in the state which is the largest suicide rate in India.

Most mental health symptoms have been traditionally divided into two groups namely neurotics and psychotics. Neurotics are those symptoms which can be regarded as severe forms of normal emotional experiences such as depression, anxiety or common mental health problems. Psychotic interfere with a person's perceptions of reality and hallucinations. The mental healthcare sector in Kerala which comes under the aegis of Health and Family Welfare Department is lacking required facilities and infrastructure in terms of qualified personnel, assisting staffs, medical equipments, newer technologies for diagnosis and treatment etc. The

facilities and services provided in government medical institutions are often not at levels to satisfy the demands and its efforts are mainly concentrated in immunizations, maternal healthcare and child healthcare sectors rather than mental healthcare. The total no. of beds available in govt. mental healthcare sector limits to 1714 in three mental hospitals and psychiatry departments of govt. medical colleges. There are 143 private mental hospitals too in this sector.

Healthcare sector in general and mental healthcare in special is a complex and stressful environment where interpersonal interactions are of paramount importance. Emotions and attitudes are important in all activities of this sector. Mental healthcare employees' work is surrounded by feelings and emotions, which are sometimes difficult to classify and identify and originate in patients as well as employees. Human resources are, without doubt, the core of the mental healthcare industry and an effective mental healthcare system depends mainly on their adequacy, quality and their right distribution.

Emotional Intelligence is understood as an ability to understand, acknowledge and regulate the emotions in self and others. It can be viewed as a skill to distinguish among different kinds of emotions and to use the acquired information for productive purposes. Organisational Commitment and Work Engagement are two widely used constructs in industrial psychology that contribute profoundly to HRM policies. The benefits of these constructs have been demonstrated in different contexts of daily life and in professional activities. It includes the skills related with empathy, social responsibility and interpersonal relationships. These skills can play a vital role in the activities of mental healthcare employees once the relationship is proved between them. Any study assessing the relationships among these constructs in mental healthcare sector has deep rooted impact and effect on society and is of paramount importance for business and non business organisations. A large number of mentally ill people can be helped merely by listening to them, providing them empathetic care and equipping them with emotional skills to cope with stressful situations.

The study will further largely contribute to the existing literature in Emotional Intelligence, Organisational Commitment and Work Engagement and will be a valid addition to the ongoing conceptualisation process and validation of models in different cultural settings. It is more true to state that no more valid research or literature is not available till the date on theses constructs in relation to the mental healthcare sector. To assess the Emotional Intelligence, Organisational Commitment and Work Engagement of mental healthcare employees is need of hour and will definitely help in ensuring the effective service delivery in mental healthcare sector. The study can make major recommendations and implications to the different stake holders of this sector including national and state governments, public and private mental health authorities, hospitals and treatment centres, doctors and nurses and patients with different mental disorders.

1.3 Problem Statement

National Mental Health Program (NMHP) was established in India in the year 1982 based on the WHO guidelines. NMHP was established for the application of mental health in general health care and in social development to improve the overall quality of life with critical strategies as integration of mental health with Primary Health Care. The programme was launched keeping in view the heavy burden of mental illness in the community and the absolute inadequacy of mental health care infrastructure in the country to deal with it. The prime aims of the program were prevention and treatment of mental, neurological disorders and their associated disabilities, use of mental health technology to improve general health services and application of mental health principles in total national development to improve quality of life.

The Mental Health Act in India was passed on 22 May 1987 describing in its opening paragraph as "An Act to consolidate and amend the law relating to the treatment and care of mentally ill persons, to make better provision with respect to their properly and affairs and for matters connected therewith or incidental there to". Mental Health Authorities at central and state levels were established under the purview of this law to establish and maintain psychiatric hospitals and nursing

homes throughout the country. Kerala State Mental Health Authority was thus formed in November 1 1993 as a statutory body constituted by Government of Kerala in accordance with section 4 of the Mental Health Act 1987. The authority has formulated considerable policies and strategies to manage the prevalent mental disorders in Kerala and to integrate with primary healthcare services. The District Mental Health Programme was started as a component of the National Mental Health Programme to provide sustainable mental health services to the community and to integrate these with health services.

Even though, a large population of Kerala is suffering from any kind of mental problems. The trend of suicidal behaviour, domestic violence, marital breakdown, attack on women and children and the like mental problems are increasing day by day. On the other hand the mental healthcare sector is lacking required facilities in terms of qualified personnel, nurses, medical equipments and the mental healthcare employees have to face severe emotional and mental problems at workplace as their work is surrounded with emotions and feelings. They have to deal daily with mentally ill people and make interaction with them. They have to work to increase community awareness of common mental disorders, reduce the associated stigma in society and support family caregivers. They have to maximize the effectiveness of prevention, identification, diagnosis and treatment activities targeting mental illness and ensure public access to mental health services to minimize costs to the public.

The human resource is the life blood of any organisation and its effective management is the only solution for eradicating the inefficiency and cultivating good work environment. Yet no more studies and researches have not undertaken related with application of innovative HR policies and tools in mental healthcare sector for better performance and results. No more literature is available in connection with the application of newer HRM strategies to the routine works of mental healthcare sector. Emotional Intelligence along with Organisational Commitment and Work Engagement are prominent HR related psychological constructs that can be examined in mental healthcare sector for better results in

terms of improved performance and positive work relationships. The lack of researches and studies to assess and evaluate these HR aspects of mental healthcare employees is evidently bringing bad results in treatment, diagnosis, and dealing of caregivers with mental disorder patients. The prevalent statistical records and World Health Organisation's reports on the status of mental disorders in India shed light to this drastic fact and want an immediate intervention from the part of researchers and academic and clinical practitioners to fill this research gap.

1.4 Research Questions

The major research questions under this study can be briefly stated as follows:

1. What is the Emotional Intelligence level of mental healthcare employees in Kerala?
2. What is the Organisational Commitment level of mental healthcare employees in Kerala?
3. What is the Work Engagement level of mental healthcare employees in Kerala?
4. What effect Emotional Intelligence has on Organisational Commitment of mental healthcare employees in Kerala?
5. What effect Emotional Intelligence has on Work Engagement of mental healthcare employees in Kerala?
6. What are the inter-linkages among Emotional Intelligence, Organisational Commitment and Work Engagement of mental healthcare employees in Kerala?
7. What effect demographic variables have on Emotional Intelligence, Organisational Commitment and Work Engagement of mental healthcare employees in Kerala?

1.5 Objectives of the Study

The general objective of this study is to explore the relationship between emotional intelligence and HR practices of mental healthcare employees in Kerala.

Specific objectives:

1. To assess the Emotional Intelligence level of mental healthcare employees in Kerala.
2. To assess the Organisational Commitment level of mental healthcare employees in Kerala.
3. To assess the Work Engagement level of mental healthcare employees in Kerala.
4. To examine the effect of emotional intelligence on HR outcomes (Organisational commitment and Work engagement) of mental healthcare employees in Kerala.
5. To evaluate the inter-linkages among Emotional Intelligence and selected HR outcomes (Organisational Commitment and Work Engagement) of mental healthcare employees in Kerala.

1.6 Hypotheses

The following hypotheses were set for the purpose of analysis and testing:

1. There is no significant difference in emotional intelligence of mental healthcare employees based on demographics.
2. There is no significant difference in organisational commitment of mental healthcare employees based on demographics.
3. There is no significant difference in work engagement of mental healthcare employees based on demographics.

4. There is no significant relationship between emotional intelligence and organisational commitment.

5. There is no significant relationship between emotional intelligence and work engagement.

6. There is no significant relationship between organisational commitment and work engagement.

7. Emotional Intelligence is positively related with Organisational Commitment of mental healthcare employees.

8. Emotional Intelligence is positively related with Work Engagement of mental healthcare employees.

9. Work Engagement is positively related with Organisational Commitment of mental healthcare employees.

10. Work Engagement mediates the relationship between Emotional Intelligence and Organisational Commitment of mental healthcare employees.

11. Organisational Commitment mediates the relationship between Emotional Intelligence and Work Engagement of mental healthcare employees.

1.7 Scope of the Study

Nowadays organisations have realized the importance of psychological wellbeing in human resource management in terms of better work environments and healthy family relations. Emotional Intelligence, Organisational Commitment, Work Engagement and the like wellbeing constructs have an unpredictable bearing on the emotional and physical stability of employees. Mental healthcare sector has not taken any leading step in this regard providing larger scope for studies and researches.

The scope of this study is limited only to Emotional Intelligence and two HR outcomes namely Organisational Commitment and Work Engagement omitting

other wellbeing factors and outcome variables. The study is limited to employees in mental healthcare sector of Kerala which includes doctors and nurses avoiding other clerical and assisting staffs for the convenience of the study.

1.8 Analytical Model

An analytical model based on the study variables was developed that includes the components of emotional intelligence, organisational commitment and work engagement. Fig 1.1 depicts the analytical model of the study. Emotional Intelligence involves four subcomponents of Self Emotion Appraisal, Others' Emotion Appraisal, Use of Emotion and Regulation of Emotion. Organisational commitment includes three factors of Affective Commitment, Continuance Commitment and Normative Commitment. Work engagement includes three components as Vigor, Dedication and Absorption

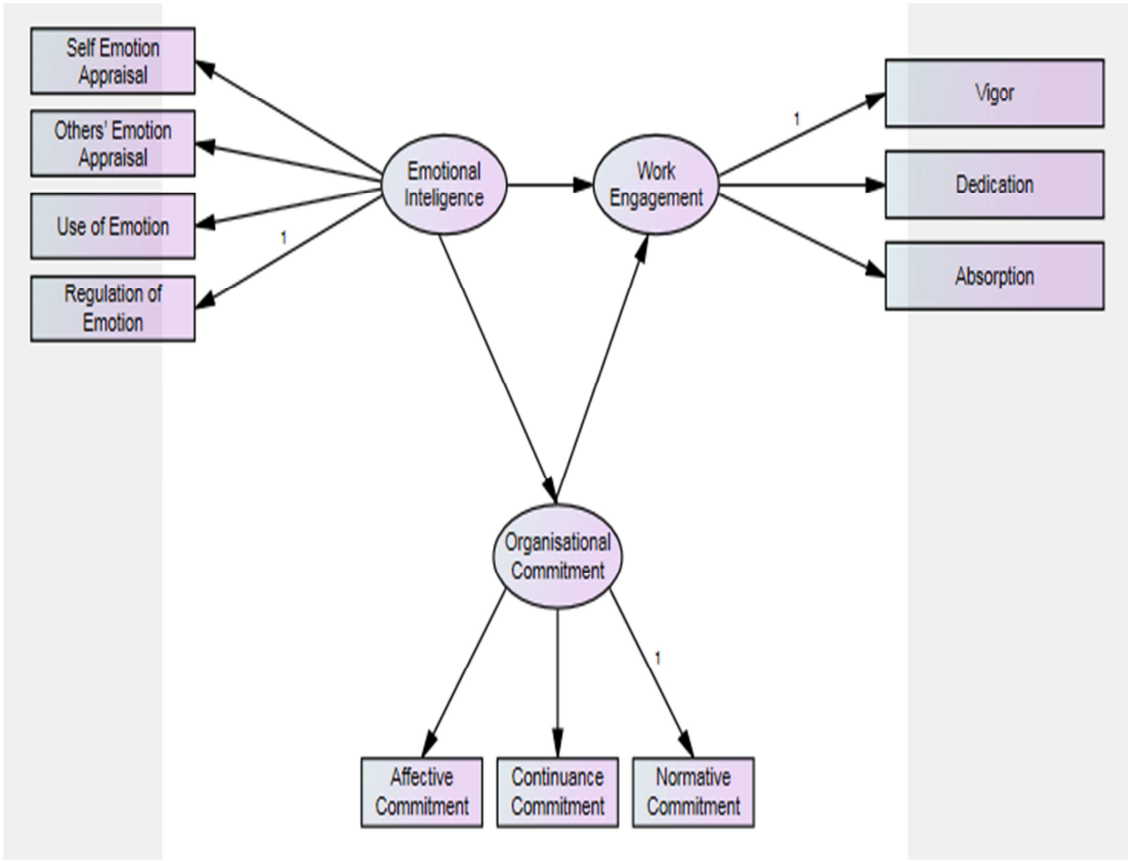


Figure 1.1: Analytical model of the study

1.9 Operational Terms and Concepts

The important operational terms and concepts can be defined as follows:

Emotional Intelligence: Emotional intelligence is the ability of employees to become aware of subtle changes in one's emotional tones in order to control them and to keep calm in the midst of pressure. It includes the skill to initiate and maintain healthy relationships with co-workers and to maintain optimistic outlook towards the job and organisation.

Self Emotion Appraisal: It is the ability to properly understand, identify, appraise and express one's own emotions.

Others' Emotion Appraisal: It is the ability to identify and appraise the emotions of others.

Use of Emotion: It refers to the ability of the individual to use emotions to aid the effective cognitive processing of information

Regulation of Emotion: It is the ability to regulate and manage the emotions.

Organisational Commitment: It is the attachment of employees to the organisation that makes them remain in it. It is the identification of employees with the goals and values of his organisation. It results in the willingness of employees to work hard for the sake of organisation and can be considered as a linkage between the individual employee and the organisation.

Affective Commitment: It is the emotional attachment of an employee to his organisation. It is his high involvement and identification with his organisation.

Continuance Commitment: It is a type of commitment that is closely related with costs or economic loss that an employee gets confronted with while leaving his organisation.

Normative Commitment: It refers to the commitment that is correlated with some kind of norms and obligations that an employee gets forced to respect and obey it.

Work Engagement: Work Engagement can be defined as a positive and satisfying state of mind. It is a positive state of mind that is relate to work and characterised by three components as vigor, dedication and absorption.

Vigor: It means the willingness or interest of an employee to exert effort for his assigned work. It is the persistence of an employee in the face of stress and difficulties.

Dedication: It is understood as the inspiration, enthusiasm, pride that is showed by an employee in relation to his work and challenges he faces during his work.

Absorption: It refers to being fully concentrated and deeply engrossed in one's work.

Mental Health: Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.

Mental Disorder: A mental disorder is a syndrome characterised by clinically significant disturbance in an individual's cognition, emotion regulation, or behaviour that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning.

1.10 Research Methodology

Research methodology provides an explanation of the research design, data sources, sampling procedures, variables used in the study, measurement instruments adopted in the study, methods of data collection, data analysis techniques

1.10.1 Research Design

The study is both explorative and descriptive in nature as the study was conducted using the review of the relevant literatures, information from the data collected from respondents and analysis using specific descriptive and inferential statistics.

1.10.2 Sources of Data

The data for the study is collected from both primary and secondary sources.

Secondary Data: Secondary data refer to the data that gathered through existing sources by someone than the researcher conducting the current study such as company record, publication, industry analysis offered by the media, web publications and so on (Sekaran, 2006). The fact that the data is accurate and ready to be used is the major advantage of using secondary data. Moreover, it is cheap to collect and less time consuming as it is already prepared by other researchers and scholars. Further it gives an insight to the researcher on the subject matters he investigates from different view cones.

In this study the secondary data was collected from both internal and external sources. It included relevant websites, annual reports, articles, journals, books, medical records and govt. records that supported the literature review of research variables as given below:

- Kerala Journal of Psychiatry
- Journal of Mental Health and Human Behaviour
- Indian Journal of Psychiatry
- The Journal of Indian Association of Child and Adolescent Mental Health
- American Journal of Psychiatry
- Journal of Nervous and Mental Disease
- European Journal of Work and Organisational Psychology.
- Journal of Personality and Social Psychology
- Journal of Organisational Behaviour
- Journal of Occupational and Organisational Psychology
- Journal of Leadership & Organisational Studies
- Journal of Managerial Psychology
- Journal of Managerial Psychology
- The International Journal of Human Resource Management
- Journal of Occupational Health Psychology

- www.ksmha.org
- dhs.kerala.gov.in
- www.centreformentalhealth.org.uk
- www.mentalhealth.org.uk
- www.nimh.nih.gov
- www.mentalhealth.com
- www.eiconsortium.org
- www.wilmarschaufeli.nl
- employeecommitment.com

Primary Data: According to Sekaran (2006) data that gathered for research from the actual site of occurrence of events are called primary data. In this study the information on Emotional Intelligence, Organisational Commitment and Work engagement of mental healthcare employees along with their demographic profile was collected through a questionnaire distributed to the sample unit. The sample unit was employees from mental healthcare sector of Kerala which included doctors and nurses from both public and private sectors. The survey questionnaire mainly consisted of three scales as:

- Wong and Law Emotional Intelligence Scale (WLEIS)
- Utrecht Work Engagement Scale (UWES)
- Organisational Commitment Scale (OCS)

1.10.3 Sample Design

A major purpose of doing research is to generalize or infer research objectives from a sample to a larger population. The process of generalization is accomplished by using statistical methods based on probability theory. A sample is a subset of the population selected, which is an unbiased representative of the larger population. Studies that use samples are less expensive and more convenient. Sometimes it may be difficult and impossible to study of the entire population. Thus the goal of sampling is to ensure that the sample is a true representative of the total

population without errors. It acts as procedure or process for selecting necessary cases to be in included in as survey analysis.

The unit of analysis in the study is individual level and the population covers employees working in mental healthcare institutions of Kerala both from public and private sectors. The employees selected for the study are psychiatrists, psychologists, social workers and nurses working in public and private mental healthcare institutions. In public sector employees (psychiatrists, psychologist, social workers and nurses) were selected from following institutions:

- Government Mental Health Center, Oolampara, Thiruvananthapuram.
- Government Mental health centre, Thrissur.
- Government Mental health centre, Kuthiravattom, Kozhikode.

In private sector psychiatrists, psychologists, social workers and nurses were selected from eighty four private mental healthcare institutions listed and licensed by Kerala State Mental Health Authority (KSMHA) which is a statutory body constituted by Government of Kerala in accordance with section 4 of the Mental Health Act 1987.

The population of the study is finite and the data from sample was collected using a self administered and structured questionnaire through stratified random sampling method. The demographic classification of sample was done on the basis of gender, marital status, duration of experience and age level of employees. The total population from which sample is drawn is depicted in table 1.1.

Table 1.1

Population of the study

Designation	**Private**	**Public**	**Total**
Psychiatrist	136	40	176
Psychologist	64	6	70
Social Worker	95	7	102
Nurse	537	251	788
Total	832	304	**1136**

Sampling Technique

The sampling technique used in the study is stratified random sampling. Stratified sampling is a probability sampling technique wherein the researcher divides the entire population into different subgroups or strata and then randomly selects the final respondents from these different strata. Stratified random sampling is used when the researcher wants to highlight a specific subgroup within the population as it ensures the presence of the key subgroup within the sample. This technique helps a researcher to observe existing relationships between two or more subgroups while the simple random sampling technique doesn't represent equally the subgroups within the sample. Further this technique has high statistical precision meaning that it requires a small sample size which can save a lot of time, money and effort from the part of researcher.

For the convenience of data collection the population of employees in mental healthcare was firstly divided in to four strata as psychiatrists, psychologists, social workers and nurses. Then data was collected from each stratum using a structured questionnaire.

Sampling Frame

A sampling frame refers to the universe or the population of interest from which sample is drawn. It is a complete list of all those units within a larger population. The sampling frame for this study includes employees working in mental healthcare sector of Kerala state. The employees include psychiatrists, psychologists, social workers and nurses working in public and private mental healthcare institutions.

In public sector it constitutes psychiatrists, psychologist, social workers and nurses working in institutions given below:

- Government Mental Health Center, Oolampara, Thiruvananthapuram.
- Government Mental health centre, Thrissur.
- Government Mental health centre, Kuthiravattom, Kozhikode.

In private sector population consists of psychiatrists, psychologists, social workers and nurses working in eighty four private mental healthcare institutions listed and licensed by Kerala State Mental Health Authority (KSMHA) which is a statutory body constituted by Government of Kerala in accordance with section 4 of the Mental Health Act 1987.

Determination of Sample Size

Krejcie & Morgan (1970) developed and suggested a table for easy referencing and determination of sample size. This was based on the formula provided by National Education Association as given below:

$$\mathbf{s = X^2 N P (1- P) \div d^2 (N -1) + X^2 P (1- P).}$$

Where, **s =** required sample size

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (1.96 × 1.96 = 3.84)

N = Population size

P = Population proportion (assumed to be .50 since this would provide the maximum sample size).

d = degree of accuracy expressed as a proportion (i.e. .05).

The sample size was calculated as given below:

3.841 * 1136 * 0.50 (1 - 0.50) / 0.05^2 (1136 - 1) + 3.841 * 0.50 (1 - 0.50)

3.841 * 1136 * 0.50 * 0.50 / 0.0025 * 1135 + 3.841 * 0.50 * 0.50

1090.844 / 2.8375 + 0.96025 = 285

According to Krejcie & Morgan (1970), the use of this table based on the given formula need not any kind of calculations. It is applicable to any study having defined population. In their paper they also noted that as the population size increases, the sample size increases at a diminishing rate and remains relatively

constant at slightly more than 380 cases. This table has also been cited by International Program for Development Evaluation Training (IPDET, 2007).

Based on the above mentioned table and formula the sample size for this study was determined as 285 mental healthcare employees as the total population is 1136 mental healthcare employees. The detailed sample frame is outlined in table 1.2.

Table 1.2

Sample Frame

Designation	Private	Public	Total
Psychiatrist	34	10	44
Psychologist	16	3	17
Social Worker	23	3	25
Nurse	137	61	199
Total	210	77	**285**

Classification of Sample

With a view to conduct cross tabulations and analyses, the data collected were classified on the basis of demographic profile to different groups. On the basis of experience they were classified as highly experienced employee (employee with more than 6 years of experience) moderately experienced (employee with 3-6 years of experience) employee and low experienced employee (employee with less than 3 years of experience). On the basis of marital status participants were classified in to single and married employees. Respondents were classified to public and private employees on the basis of occupational status.

1.10.4 Measurement Instruments

A questionnaire refers to a group of written questions that collect certain relevant information from respondents for specific purpose. In social sciences, it is considered as one of the most common tools for collecting data. Usually a

questionnaire includes open-ended items, measurement scales and questions about demographic profile. It is very difficult and complex to design an ideal questionnaire as it gets influenced by research design and project considerations. Scaled questions consist of statements or questions followed by a rating scale where respondents indicate the degree to which they agree or disagree (Terre Blanche & Durrheim, 1999). The Likert scale format is appropriate as it follows for a wide range of responses from strongly disagreeing to strongly agreeing. Three scales namely Wong and Law Emotional Intelligence Scale (WLEIS), Utrecht Work Engagement Scale (UWES) and Organisational Commitment Scale (OCS) were used in this study. These scales were adopted for the study after seeking permission from the concerned authors. A detailed description of three scales is given below.

1) Wong and Law Emotional Intelligence Scale

'Wong and Law Emotional Intelligence Scale' was used in this study to assess the emotional intelligence of mental healthcare employees. It is a well known conceptually established self rating scale widely used throughout the world for academic and non academic purposes. Chi-Sum Wong and Kenneth S. Law developed this scale based on the four dimensional definition of emotional intelligence as defined by Davies et al. It is very simple, practical, and psychometrically sound measure of EI that can be used for organisational research purposes. Wong and Law reviewed the existing definitions and domains of the EI construct and argued that it should be conceptually distinct from traditional personality dimensions. They investigated the validity and utility of the EI construct through studies with four sample design following Davies et al.'s (1998) work and other recent works on EI defining it as a four-dimensional construct. Their four dimensional definition comprises the skills for monitoring emotions in self and others, ability for regulating feelings and emotions and finally the skill to use the information from emotions. However the definition of EI as a set of abilities conceptually distinguishes it from personality traits, which are behavioural preferences.

The generation, testing and cross-validation of the items in the WLEIS were done through a rigorous development process that started with three groups of MBA and undergraduate students trained on the EI construct. The items were generated according to the four-dimensional definition of EI as developed by Davies et al. (1998). According to three criteria, all inappropriate items were deleted and removed from the scale which resulted in concluding a total of nine items for each dimension. The factor loadings of the items on their respective factors and correlations with selected criterion variables using a sample of 189 university students further eliminated the items resulting in sixteen items with four items in each dimension. This 16-item scale was cross-validated with three additional student samples (*N*1 _ 72, *N*2 _ 146, *N*3 _ 110), 116 nonteaching employees from a university, and 149 supervisor - subordinate dyads (60 middle and upper - level managers).

2) Three Component Model (TCM) Employee Commitment Survey

In this study organisational commitment of mental healthcare professionals was measured with Revised Version (Meyer, Allen, & Smith, 1993) of Three Component Model (TCM) Employee Commitment Survey as developed by Meyer, Allen and Smith. It is a well know and psychometrically sound tool widely used throughout the world to assess the organisational commitment. Organisational Commitment is defined in this model as “a psychological state that characterises the employee’s relationship with the organisation conceptualised in three approaches as affective, continuance and normative” (Meyer, Allen, & Smith, 1993). In TCM employee commitment survey mainly three forms of commitments to are measured. These commitments involve commitment based on affection or desire, commitment based cost and commitment based on norms and obligation. Survey is consisted of some statements that employee respond to it to reveal the nature of their relationship with certain organisation. This measurement tool is prepared in such way that employees reading the statements express the degree and strength of agreement or disagreement on a seven point scale from strongly disagree to strongly agree.

3) Utrecht Work Engagement Scale

Utrecht Work Engagement Scale is used to measure the work engagement of mental healthcare employees in this study. UWES is a scientifically verified and validated self-report questionnaire developed by Schaufeli and his colleagues. It has been developed based on three dimensions of work engagement namely vigor, dedication, and absorption.

1.10.5 Pilot Study

To test the reliability, validity and efficiency of the research instruments adopted in the study a pilot study was conducted among sixty respondents from mental healthcare institutions. In this study information was collected about demographic profile of respondents, emotional intelligence, organisational commitment and work engagement levels of respondents. The completed schedule was checked and the omission and commissions were rectified on the spot. The pilot study was undertaken in the months of October and November in the year of 2016.

1.10.6 Reliability Analysis:

Reliability analysis is used to measure the extent to which an item, scale, or instrument will yield the same score when administered in different times, locations, or populations when the two administrations do not differ in relevant variables. Reliability refers that a scale generates the the same results if measurements were repeated. The reliability analysis allows a researcher to study the properties of measurement scales and the items that make them up and provides information about the relationships between individual items in the scale. Reliability coefficients are forms of correlation coefficients. The reliability of a measure refers to its consistency. Internal consistency reliability is determined by checking the components of a questionnaire against each other.

Internal consistency reliability in the form of Cronbach alpha is the type reported in this research. Cronbach's alpha is the most common form of reliability coefficient and is expressed as a correlation coefficient. Its value ranges from 0 to +1 and alpha should be 0.70 or higher to retain an item in a scale. In order to

evaluate the internal consistency of the three scales adopted in the study a reliability analysis was conducted using Cronbanch Alpha Reliability Test (Cronbach, 1951). Cronbach Alpha for three scales and its subscales was higher than 0.7 which proved that the internal consistency of the scales is very good and the instruments can be considered as reliable.

Table1.3

Reliability Statistics and Cronbach Alpha

Sl. No.	Scales	No. of Items	Cronbach Alpha
1	**Wong and Law Emotional Intelligence Scale (WLEIS)**	**16**	**.850**
2	Self Emotion Appraisal Subscale	4	.757
3	Others Emotion Appraisal Subscale	4	.714
4	Use of Emotion Subscale	4	.715
5	Regulation of Emotion Subscale	4	.705
6	**Utrecht Work Engagement Scale (UWES)**	**17**	**.845**
7	Vigor Subscale	6	.752
8	Dedication Subscale	5	.702
9	Absorption Subscale	6	.750
10	**Organisational Commitment Scale (OCS)**	**18**	**.838**
11	Affective Commitment Subscale	6	.744
12	Continuance Commitment Subscale	6	.706
13	Normative Commitment Subscale	6	.746

a) Content Validity:

Content validity is the extent to which the elements within a measurement procedure are relevant and representative of the construct that they will be used to measure (Haynes et al., 1995). Establishing content validity is a necessarily initial

task in the construction of a new measurement procedure or revision of an existing one.

To ensure the content validity of the adopted scales, researcher undertook an in depth review of available literature in Emotional Intelligence, Work Engagement and Organisational Commitment constructs. Data related with modification, development and validation of these scales was reviewed carefully and studies undertaken on the content validity of these scales were examined. Researcher contacted with experts and authors of these scale and confirmed the content and face validity of the adopted scales.

b) Convergent Validity

Convergent validity tests establish whether responses to the questions in a scale are sufficiently correlated with the respective latent variables. Convergent validity is usually assessed based on the comparison of loadings calculated through a non-confirmatory analysis with a fixed value (Ketkar, Kock, Parente & Verville, 2012). Two criteria are recommended as the basis for concluding that a measurement model has acceptable convergent validity: p values associated with the loadings should be lower than 0.05 and loadings for indicators of all respective latent variables must be 0.5 or above for the convergent validity of a measure to be acceptable (Hair et al., 2009).

The factor loadings associated with the latent variables on all three scales were found to be above 0.5. Hence it was assumed that the measurement model for the constructs of Emotional Intelligence, Organisational Commitment and Work Engagement has an acceptable convergent validity.

c) Discriminant Validity

Discriminant validity tests verify whether responses from the respondents to the questions are either correlated or not with other latent variables. A measurement model has acceptable discriminant validity if the square root of the average variance extracted (AVE) for each latent variable is higher than any of the correlations between the latent variable under consideration and any of the other latent variables

in the measurement model (Fornell & Larcker, 1981). Discriminant validity is confirmed by examining correlations among the constructs. As a rule of thumb, a correlation of 0.85 degree or above indicates poor discriminant validity in structural equation modelling (David 1998).

In Emotional Intelligence, Organisational Commitment and Work Engagement constructs none of the correlations among variables were found to be above 0.85 and adequate discriminant validity was suggested for the measurement models. In addition, to confirm discriminant validity, the inter construct correlation were calculated and compared with average variance extracted. In all three measurement models the average variance extracted (AVE) estimates were larger than the squared inter construct correlation estimates and the discriminant validity was confirmed.

d) Normality

For effective analyses and accurate results most of the statistical methods and tools require the assumption that the variables observed are normally distributed. In multivariate statistics, the assumption is that the combination of variables follows a multivariate normal distribution. Since there is no direct test for multivariate normality, each variable is individually tested and assumed that they are multivariate normal if they are individually normal, though this may not be necessarily the case. In SEM model, estimation and testing are usually based on the validity of multivariate normality assumption, and lack of normality will adversely affect goodness-of-fit indices and standard errors (Baumgartner and Homburg 1996; Hulland et al 1996; Kassim 2001).

The univariate normality of the variables was tested using Kolomogorov-Smirnov test with Lillefors significance correction. The results of the Kolomogorov-Smirnov test with Lillefors significance correction revealed that none of the variables are normally distributed. Statisticians and researchers usually use skewness and kurtosis tests for assuming the normality of certain variables. Skewness refers to the symmetry or asymmetry of a distribution whereas kurtosis relates to the

peakedness of a distribution. A distribution is said to be normal when the values of skewness and kurtosis are equal to zero (Tabachnick and Fidell; 2001).

However, there are few clear guidelines about how much non-normality is problematic. It is suggested that absolute values of univariate skewness indices greater than 3.0 seem to describe extremely skewed data sets (Chou and Bentler 1995). In kurtosis a kurtosis index greater than 10.0 is considered as problematic. All variables in three measurement models were found to fall under the kurtosis value of 10 and Skewness value of 3. Thus it was inferred that the kurtosis and skewness values were not problematic in this study and parametric test can be used for analysis purposes.

1.10.7 Variables Used for the study

To examine the relationships among emotional intelligence, organisational commitment and work engagement and conduct valid statistical analyses certain variables were identified the demographic Variables under the study includes gender, age, and educational qualifications. The major variables of the study are given in table 1.4.

Table 1.4

Variables Used in the Study

Sl. No	Variables	Description
1	Self Emotion Appraisal	It is the ability to properly understand, identify, appraise and express one's own emotions.
2	Others Emotion Appraisal	It is the ability to identify and appraise the emotions of others.
3	Use of Emotion	It refers to the ability of the individual to use emotions to aid the effective cognitive processing of information.
4	Regulation of Emotion	It is the ability to regulate and manage the emotions.
5	Vigor	It is the interest or willingness to take effort in conducting the work, and ability to be persistent in front of any difficulty.

Sl. No	Variables	Description
6	Dedication	It is the feeling of importance, inspiration, pride and energy in performing an assigned work.
7	Absorption	It the concentration or engrossment expressed by employee while doing a work role in an organisation.
8	Affective Commitment	It refers to the emotional bond one employee has with his organisation whereby he identifies and involve in the organisational roles.
9	Continuance Commitment	It is a type of commitment that is closely related with costs or economic loss that an employee gets confronted with while leaving his organisation.
10	Normative Commitment	This commitment is correlated with some kind of norms and obligations that an employee gets forced to respect and obey it.

1.10.8 Administration of the Tools

The researcher administered a structured survey questionnaire to the selected sample from mental healthcare employees in Kerala individually. For the convenience of the respondents the questionnaire was divided into four separate sections as follows:

- Biographic and Demographic Profile,
- Wong and Law Emotional Intelligence Scale (WLEIS)
- Utrecht Work Engagement Scale (UWES)
- Organisational Commitment Scale (OCS).

The questionnaire was handed over to each respondent personally. A cover letter was attached with questionnaire introducing the researcher and institution. The purpose and objectives of the study was clearly communicated to the respondents and were informed that the information collected will be strictly confidential and will be used only for academic purpose. The respondents were asked to read the instructions carefully and respond accordingly. They asked to rate each item of the three scales on a seven point Likert scale from strongly disagreeing to strongly

agreeing. The respondents who left any item blank without any response was not taken in account for the final analysis.

1.10.9 Scoring and Tabulation

The data collected through the survey questionnaire was scored as per the scoring procedures in the manuals on a seven scale. 1 for extreme negative response (strongly disagree) and 7 for extreme positive response (strongly agree). The total scores of subscales were obtained firstly and then the total scores of three scales were obtained by summing up their dimensional scores.

1.11 Period of the Study

The study was conducted within a period of four years and nine months from July 2014 to April 2019. The pilot study for testing the validity and reliability of the scales were undertook in the months of October and November in the year of 2016.

1.12 Data Analysis Tools

According to Cooper and Emoy (1995), data analysis usually involves reducing accumulated data to a manageable size, developing summaries, looking for patterns and applying statistical techniques. The data collected from respondents was scrutinized carefully and entered into computer package for analysis. The data was processed using the SPSS (Statistical Package for Social Sciences) software. The analysis was done mainly using descriptive and inferential statistics as follows:

- Mean
- Standard Deviation
- T test
- ANOVA
- Post Hoc Analyses
- Exploratory and Confirmatory Factor Analysis
- Correlation Analysis
- Structural Equation Modelling (SEM)

1.13 Limitations of the Study

The major limitations of the study can be stated as:

1. Only two HR outcomes namely organisational commitment and work engagement are considered in this study.
2. The study is confined to mental healthcare sector and doesn't cover other health sectors.
3. The study hasn’t included the viewpoints and feedbacks of rehabilitated mental health patients.
4. The study is based on the viewpoints of employees that include nurses and doctors from mental healthcare institutions.
5. Human emotions are far away from reach. It can’t be understood or studied precisely to the full extent.

1.14 Organisation of the Chapters

The organisation of the chapters in the study was done in the below given format:

Chapter 1 - Introduction

This chapter provides in overall introduction of the study. Further a description on significance of the study, objectives of the study, scope of the study, statement of the problem, sampling, measurement instruments, pilot study, validity and reliability of the scales, tools used for analysis and limitations of the study is included.

Chapter 2 - Review of Literature

This chapter contains a detailed review of relevant literature in the area of the study. The review of the literature is divided in to three separate parts namely, Review on Emotional Intelligence, Review on Organisational Commitment and

Review on Work Engagement. Finally chapter provides a research gap as identified by researcher.

Chapter 3 - Theoretical Framework of the Study

A theoretical overview and framework of the major variables and constructs is given in this third chapter. A detailed description about theories, models and developmental stages related with Emotional Intelligence, Organisational Commitment and Work Engagement is narrated in the chapter. It also includes the contributing factors, antecedents and precedents of major constructs.

Chapter 4 - Emotional Intelligence of Mental Healthcare Employees

This chapter analyses the levels of Emotional Intelligence of mental healthcare employees. Self Emotion Appraisal, Others' Emotion Appraisal, Use of Emotion and Regulation of Emotion of employees are assessed and evaluated. Chapter explains the effects of demographic variables on Emotional Intelligence of employees.

Chapter 5 - Organisational Commitment of Mental Healthcare Employees

This chapter assess the Organisational Commitment level of mental healthcare employees and evaluates Affective Commitment, Continuance Commitment and Normative Commitment of the employees. Chapter explains the effects of demographic variables on Organisational Commitment of employees.

Chapter 6 - Work Engagement of Mental Healthcare Employees

This chapter evaluates the Work Engagement level of mental healthcare professionals. It assesses the Vigor, Dedication and Absorption of employees and explains the effects of demographic variables on Work Engagement of employees.

Chapter 7 - Inter linkages among Emotional Intelligence, Organisational Commitment and Work Engagement

It examines the inter linkages among the three constructs namely, Emotional Intelligence, Organisational Commitment and Work Engagement. It evaluates the

effect of Emotional Intelligence on Work Engagement and Organisational Commitment and the mediation effect in the relationship of Emotional Intelligence.

Chapter 8 - Summary of Findings, Conclusions and Suggestions

This chapter provides a summary of the study. It also includes major findings, suggestions and conclusion of the research study. The scope for further research is also added in this chapter.

References

Allen, N. J. & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment. *Journal of Occupational Psychology*, 63, 1-18.

Allen, N. J. & Meyer, J. P. (1993). Organisational commitment: evidence of career stage effects. *Journal of Business Research*, 26, 49-61.

Allen, N. J. & Meyer, J. P. (1996). Affective, continuance and normative commitment to the organisation: An examination of construct validity. *Journal of vocational Behaviour*, 49, 252-276.

Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organisation. *Journal of Occupational Psychology, 63,* 1-18.

Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organisation: An examination of construct validity. *Journal of Vocational Behaviour, 49,* 252-276.

Angle, H. L., & Perry, J. L. (1981). An Empirical Assessment of Organisational Commitment and Organisational Effectiveness. Administrative Science Quarterly, 27, 1-14.

Bar-On, R. (2002). *Bar-On Emotional Quotient Inventory: A measure of Emotional Intelligence.* New York: Multi-Health Systems.

Bar-On, Reuven, Parker, & James, D.A. (2000). *The handbook of emotional intelligence.* New York: Jossey-Bass.

Baumgartner, H. & Homburg, C. (1996), Applications of structural modeling in marketing and consumer research: A review, *International Journal of Research in Marketing*, 13, 139-161.

Bluedorn, A. C. (1982). A unified model of turnover from organisations. Human Relations, 35, 135-153.

Cherniss, C. The business case for emotional intelligence. Consortium for Research on Emotional Intelligence in Organisations.

Chou, C. P., & Bentler, P. M. (1995). Estimates and tests in structural equation modeling. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications*, 37-55, Thousand Oaks: Sage Publications.

Cohen, A. (2003): *Multiple commitments in the workplace.* Mahwah, NJ: Lawrence Erlbaum Associates.

Cooper, D.R. & Emory, C.W. (1995). Business Research Methods. 5th edition. Chicago: Irwin, R.G. Inc.

Eby, L. T., Freeman, D. M., Rush, M. C., & Lance, C. E. (1999). Motivational bases of affective organisational commitment: a partial test of an integrative theoretical model. *Journal of Occupational and Organisational Psychology*, 72, 463–483.

Fornell, C. and Larcker, D.F. (1981) Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18, 39 - 50.

Goleman, Daniel. (1995). *Emotional intelligence.* New York: Bantam.

Goleman, Daniel. (1998). *Working with emotional intelligence.* New York: Bantam.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). Multivariate data analysis. *Upper Saddle River*, NJ: Prentice Hall.

Haynes, S. N., Richard, D. C. S., & Kubany, E. S. (1995). Content validity in psychological assessment: A functional approach to concepts and methods. *Psychological Assessment, 7*(3), 238-247.

Hulland, J. Chow, YH. & Lam, S. (1996) Use of casual models in marketing research: A review, *International Journal of Research in Marketing*, 13, 181-197.

Kassim, NM. (2001) *Determinants of customer satisfaction and retention in the cellular phone market of Malaysia,* PhD thesis, Southern Cross University, Lisbon.

Ketkar, S., Kock, N., Parente, R., & Verville, J. (2012). The impact of individualism on buyer - supplier relationship norms, trust and market performance: An analysis of data from Brazil and the U.S.A. *International Business Review*, 21(5), 782-793.

Law, K. S., Wong, C. S., & Mobley, W. H. (1998). Toward ataxonomy of multidimensional constructs. Academy of Management Review, 23 (4), 741-755.

Mayer, J. D., & Salovey, P. (1997). *What is emotional intelligence?* New York: Basic Books.

Mayer, J. D., Caruso, D. R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for intelligence. *Intelligence*, 27, 267-298

Meyer J. P., Allen N. J. (1991): A three-component conceptualization of organisational commitment. *Human Resources Management Review*, 1 (1), 61-89.

Meyer, J. P. (1997). Organisational commitment. In C. L. Cooper,&I.T. Robertson (Eds.), *International review of industrial and organisational psychology*, 12, 175-228

Meyer, J. P., & Allen, N. J. (1984). Testing the "side-bet theory" of organisational commitment: Some methodological considerations. *Journal of Applied Psychology*, 69, 372–378.

Meyer, J. P., & Allen, N. J. (1986, June). *Development and consequences of three components of organisational commitment.* Paper presented at the annual meeting of the Administrative Sciences Association of Canada, Whistler, Canada.

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organisational commitment. *Human Resource Management Review*, 1**,** 61–89.

Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application.* Thousand Oaks, CA: Sage.

Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage Publications.

Meyer, J. P., Allen, N. J., & Gellatly, I. R. (1990). Affective and continuance commitment to the organisation: Evaluation of measures and analysis of concurrent and time-lagged relations. *Journal of Applied Psychology*, 75, 710-720.

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organisations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78**,** 538-551.

Mowday, R. T., Porter, L. W., & Dubin, R. (1974). Unit performance, situational factors, and employee attitudes in spatially separated work units. *Organisational Behaviour and Human Performance*, 12, 231-248.

O'Reilly, C., & Chatman, J. (1986). Organisational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behaviour. *Journal of Applied Psychology*, 71, 492-499.

Pareek, U. (2004). Understanding Organisational Behaviour. London: Oxford University Press.

Porter, L.W., Steers, R.M., Mowday, R.T., & Boulian, P.V. (1974). Organisational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59, 603-609.

Sagie, A. (1998). Employee absenteeism, organisational commitment and job satisfaction: Another look. *Journal of Vocational Behaviour*, 52, 156-171.

Salovey, Peter, & Sluyter, D. (Eds.) (1997). *Emotional development and emotional intelligence: Implications for educators.* New York: Basic Books

Schaufeli, W.B. & Van Dierendonck, D. (2000). *UBOS -- Utrechtse Burnout Schaal. Handleiding* [UBOS Test Manual]. Lisse, The Netherlands: Swets Test Services.

Schaufeli, W.B., Salanova, M., Gonza´lez-Roma´, V., & Bakker, A.B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71–92.

Schaufeli,W. B.,&Bakker,A.B. (2003). *Test manual for the UtrechtWork Engagement Scale*. Unpublished manuscript, Utrecht University, the Netherlands. Retrieved from http://www.schaufeli.com

Sekaran, U. (2006). *Research Methods For Business: A Skill Building Approach.* (4ed.). New Delhi: Sharda Ofsett Press

Steers, R. M. (1977). Antecedents and outcomes of organisational commitment. *Administrative Science Quarterly*, 22, 46-56.

Tabachnick, B.G. and Fidell, L.S. (2001) *Using Multivariate Statistics*. 4th Edition, Allyn and Bacon, Boston.

Terre Blanche, M., & Durrheim, K. (1999). Research in practice, Cape Town: University of Cape Town Press.

Tett, R.P., & Meyer, J.P. (1993). Job satisfaction, organisational commitment, Turnover intention and turnover: path analyses based on meta-analytic findings. *Personnel Psychology*, 46, 259-293.

Wong, C. S., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The Leadership Quarterly*, *13*, 243–274.

CHAPTER 2

REVIEW OF LITERATURE

Contents .....Page No.

2.1 Introduction

A review of the literature about the variables included in the study was conducted by the researcher. Literature review is the inevitable part of any research study as it helps in defining the problem clearly, evaluating the prevalent research methods and in avoiding unnecessary duplications. The review of the available literature shows how the current study is related with previous studies and with the literature in general. It helps a researcher in identifying the research gaps that highlights the scope and importance of the current study.

The review of literature in the study was done by referring relevant books, theses, dissertations, assignments, journal articles, online sources, and other exemplary studies related with Emotional Intelligence, Work Engagement and Organisational Commitment. Different schools of thought, models, constructs and arguments in relation with these variables were reviewed for this purpose. The developmental stages of different theories and modifications procedures of the constructs and measurement tools in different cultural settings were examined and reviewed. Mainly the studies in these topics are undertaken in foreign countries while the local studies are very less in numbers and content. Researcher has attempted to refer the maximum literature available in foreign and local settings giving more importance for the studies in healthcare sectors.

For the easy understanding and identification of the different variables the review of literature is divided into three meaningful sections as follows:

a) Review on Emotional Intelligence
b) Review on Work Engagement
c) Review on Organisational Commitment

The first section provides a detailed review of Emotional Intelligence narrating the relevant studies undertaken on this topic. The second section gives a description about the major studies in Work Engagement and the third section includes review of the published works on Organisational Commitment.

2.2 Emotional Intelligence

Blau (1964) analysed society's structural properties examining the structural dimensions of society. He examined the process that guide face to face interaction and argued that interaction is shaped by a reciprocal exchange of rewards. According to him social exchange is considered as an important type of exchange in organisations as it helps in improving employee performance in specific organisation. Any type of social exchange involves certain kind of interactions. Further positive social interactions and exchanges in an organisation are created by emotional understanding, regulation, and utilization. It also results in facilitating employee performance in an organisation.

McClelland (1975) used the idea of competence for identifying and differentiating outstanding performers from average performers at work at the work place. The data for the study was collected from more than thirty organisations in different settings. The data was collected from executive positions in different professions which included banking, mining, geology, health care and sales. The findings indicated that a wide range of Emotional Intelligence competencies and a narrow range of cognitive intelligence distinguished top performers from average performers. Achievement Drive, Developing Others, Adaptability, Influence, Self-Confidence, and Leadership were found as the competences that distinguished most strongly. Analytic Thinking was the only one cognitive competence that distinguished. It was also found that each competence can contributes uniquely to the workplace effectiveness.

Salovey, P., & Mayer, J.D. (1990) presented a framework for Emotional Intelligence. According to this framework EI refers to a set of skills that enables an individual for appraising his emotions accurately and expressing emotions in himself and others. Employees having these skills can effectively regulate of emotion and use the emotional information for getting motivated in the workplace environment. They reviewed the literature about the adaptive and maladaptive types of emotion and explored formal aspects of traditional intelligence and social intelligence. In this

framework they attempted for integrating research on emotions and its related skills and discussed the role of emotional intelligence in mental health.

Seligman (1991) conducted a study to identify the optimism of salesmen. The results of the study concluded that optimism is a very important emotional competence. Optimism helps in achieving and gaining increased productivity in all spheres. According to the results, new salesmen at Met Life were scored high on a test of "learned optimism". They sold 37 percent more life insurance in their first two years than pessimists which means that salesmen with optimism can achieve increased productivity.

Williams (1994) undertook a study titled 'Leadership for the 21st Century: Life insurance leadership study'. CEOs in U.S.A. Insurance Companies were selected as study samples. The results of the study suggested that companies having CEOs with more EI competencies exhibited better financial results. Financial results were measured by profit and growth levels given the comparable sizes. The findings proved that an emotionally intelligent leader can create a working climate that will encourage employees to give their best to the organisation that will help the business improve its performance.

McClelland (1998) studied the division heads of a global food and beverage company. He found a good relationship between Emotional Intelligence strengths in a leader and the business results. The results of the study concluded that the divisions of the leaders who have a critical mass of strengths in Emotional Intelligence competencies can outperform yearly revenue targets by a margin of 15 to 20 percent. In his study the divisions of the leaders with good strengths in Emotional Intelligence competencies outperformed these yearly targets by 15 to 20 percent margin.

Boyatzis (1999) evaluated experienced partners in a multinational consulting firm on their Emotional Intelligence competencies along with other three factors. Firm partners who could score above the median on nine or more of the twenty competencies was delivered a $1.2 million more profit (a 139 percent incremental gain). The results of the study indicated that employees who were successfully

selected scored higher in the emotional intelligence competencies of Assertiveness, Empathy, Happiness, and Emotional Self Awareness. The Air Force found that the possibility of selecting successful recruiters was increased by nearly three-fold by using emotional intelligence in selection which saved $3 million annually.

Humpel & Caputi (2001) conducted an exploratory study titled "Exploring the relationship between work stress, years of experience and emotional competency using a sample of Australian mental health nurses". The study examined the relationship between work stress and emotional competency. The correlations among emotional competency, stress and the length of time in mental health nursing was also explored. The findings of study concluded that a significant relationship existed between emotional competency and years of experience. Results indicated that more experienced nurses with an experience of six or more exhibited increased levels of emotional competency and this relationship was stronger for female nurses. Personal self-doubt was highly experienced by nurses with less than two years experience in the nursing profession than nurses with greater nursing experience.

Akerjordet and Severinsson (2004) explored the experiences of emotional intelligence by mental health nurses in their nursing practice. The data was collected from mental health nurses using qualitative interviews that was developed based on the literature on Emotional Intelligence. The study was undertaken using a hermeneutic analysis. The results of the study indicated that the substance of supervision, motivation, and responsibility has good relationship with patients and the Emotional Intelligence urges the need for identifying the professional mental health nursing identity. Emotional learning and maturation process can be considered as key factors of professional competence which include personal growth and development. Further the study has highlighted the importance of the moral character of the mental health nurse in relation to clinical practice. The findings implied the multiple types of intelligence related to nursing science as well as further research possibilities within the area of Emotional Intelligence.

Auxiliadora Duran (2004) conducted a study to investigate the relationships among dimensions of self-reported emotional intelligence, Burnout and

Engagement. The data for the study was collected from a sample of Spanish employees who worked at an institution for caring people with intellectual disabilities. Trait Meta-Mood Scale, Utrecht Work Engagement Scale and Maslach Burnout Inventory were the tools use for collection of data. The results of the study revealed a significant association between Emotional Clarity and Personal Accomplishment (r = .25) and Emotional and Dedication (r = .25). Repair to moods was found to be significantly correlated with all engagement dimensions of vigor (r = .20), dedication (r = .30) and absorption (r = .36). The conclusions of the study were an extension to a previous study that was conducted among college students. It explained clarity and repair to moods as the important variables to predict the interpersonal functioning and wellbeing indexes. The results also suggested that work-related variables and emotional functioning of professional sample is significantly related with Trait Meta-Mood Scale subscales.

Mcqueen (2004) analysed the available literature related with emotional labour and emotional intelligence for understanding the relevance of emotional intelligence in nursing profession. CINAHL and MEDLINE databases supported by hand-search of relevant journals and significant references was used for the purpose of literature search. 'Emotions', 'intelligence', 'emotions and intelligence' and 'emotional labour' were the search terms used in this study.

The results of this literature analysis revealed that emotional intelligence has an important role in forming successful human relationships and nursing profession can be performed successfully with emotional intelligence. Emotional labour was found to be important in establishing therapeutic nurse-patient relationships and it carries the risk of burnout if it gets prolonged or intense. The study further suggested that emotional intelligence as well as general intelligence is overtly developed in preparing nurses for their professional work.

Rozman bin Hj. Mohd Yusof (2006) investigated the relationships between emotional intelligence and organisational commitment of zakat centre workers. A group of 113 zakat centre employees were selected as sample and data was collected from them using self-report surveys to determine emotional intelligence and

organisational commitment level. Data was analysed using Pearson Product Moment Correlation analysis.

The finding of the study revealed that zakat centre employees are good in each dimension of emotional intelligence, except for self-management. They showed a low score in self-management dimension. The results indicated that they are good in affective, continuance and normative commitments. The study showed a moderate relationship between overall emotional intelligence and organisational commitment which means that emotional intelligence can be used as a predictive instrument to determine organisational commitment.

Natalio Extremera (2006) examined the relations between emotional intelligence (EI), anxiety, depression, and mental, social, and physical health in university students. A sample of 184 university students including 38 men and 146 women were selected for study. The data was collected from the sample through survey method. Trait Meta-Mood Scale (Salovey, Mayer, Goldman,Turvey, & Palfai, 1995) was used to measure EI, Trait Anxiety Questionnaire (Spielberger, Gorsuch, Lushene, Vagg, &Jacobs, 1983) to measure anxiety and Beck Depression Inventory (Beck, Rush, Shaw, & Emery, 1979) for depression. Mental, social, and physical health was evaluated with the SF-12 Health Survey (Ware, Kosinski, & Keller, 1996).

Findings of the study indicated that high Emotional Attention was positively and significantly related to high anxiety, depression, and to low levels of Role Emotional, Social Functioning, and Mental Health. Meanwhile, high levels of emotional Clarity and Mood Repair were related to low levels of anxiety and depression, high Role Physical, Social Functioning, Mental Health, Vitality, and General Health. However the study confirmed the predictive value of Attention, Clarity and Mood Repair regarding the levels of anxiety, depression, and areas related to mental, social, and physical health in university students.

Vidhya Ravindranadan & Raju (2008) examined the emotional intelligence and quality of life of parents of children with special needs to understand their difference from parents of normal children. A sample of 200

parents from Kerala which consist 100 parents of children with special needs and 100 parents of normal children was selected for conducting the study. The five selected categories of special needs were ADHD, Autistic Disorder, Down syndrome, Mental Retardation, and Learning Disabilities. Emotional Intelligence Scale and Quality of Life Scale were the measuring tools used in this study.

The results of the study indicated that the parents of children with special needs are significantly different from the parents of normal children. The study found that they were different on the ground of both emotional intelligence and quality of life irrespective of the category to which the child belongs. It further revealed that the condition of the child affects both the parents equally.

Wilson SC (2008), conducted a research study to examine the views of nurse educators about the challenges they encounter when seeking to assess a student's development of emotional competence during the three year bachelor of nursing degree. Focus groups were used to obtain from educators evidence of feeling and opinion as to how theory and practice environments influence student nurses' development of emotional competence. The process of thematic analysis was utilized in the study. The key themes were identified as areas of importance to the participants and were informed that personal and social competence will collectively comprise the emotional competence in nursing and the emotional competence will be considered as a key component of fitness to practice. The findings of the study indicated that there exists a need for definition of what emotional competence is in nursing field. The findings suggested that educators and practicing nurses, who work alongside students, must uphold the expectation that emotional competence as a requisite ability and should work hard to be role model in emotionally competent communication.

Neerpal Rathi & Renu Rastogi (2009) examined the relationship among Emotional Intelligence, occupational self efficacy and organisational commitment. Data for the study was collected from a sample of 120 employees working in various organisations in India. EI Scale developed by Hyde, Pethe, and Dhar (2002)**,** Occupational Self-Efficacy Scale (OSES) developed by Pethe, Chaudhari, and Dhar

(1999) and Organisational Commitment Questionnaire (OCQ) developed by Mowday, Steers, and Porter (1979) were the tools used in this study.

The findings of the study revealed a positive and significant correlation between emotional intelligence and occupational self-efficacy ($p< 0.01$). The relationship between organisational commitment and emotional intelligence was found to be positive and insignificant. The study results found a low positive association between occupational self-efficacy and organisational commitment.

Pardee (2009), examined the relationship between emotional intelligence and job satisfaction among a population of mental healthcare professionals. Researcher selected mental health professionals with at least a Bachelor's degree, and who work at least fifty-one percent of the time in a counselling role as participants in this study. The results of the study clearly indicated that external factors account for a part of the variance of job satisfaction among mental health professionals. Meanwhile the impact of emotional factors, such as emotional intelligence in variance of job satisfaction was not explored in the study. The high turnover and burnout rates in the mental healthcare sector necessitate the importance of identifying the factors related to job satisfaction. The results further suggested that there are no differences in emotional intelligence based upon gender while job satisfaction of the males appeared to be influenced by the ability to be aware of emotions and manage own emotions. The job satisfaction of females was appeared to be influenced solely by the ability to be aware of emotions. However the internal factors were found to play a role in job satisfaction among this population.

Jafar Shabani (2010) undertook a quantitative study to investigate the association of emotional intelligence with mental health scales and sub-scales that included somatic symptom, anxiety, social dysfunction and depression. A sample of 247 high school students from Iranian schools including 124 boys and 123 girls of 8 schools were selected. General Health Questionnaire (GHQ) was used to measure mental health scales and sub-scales in this study and emotional intelligence was assessed using Emotional Quotient Inventory, Youth Version (EQ-I YV). Pearson’s correlation and simple regression analysis was used for data analysis.

The results of this study accepted the hypothesis that emotional intelligence is significantly related with mental health scales and sub-scales scores. The study revealed that mental health scales and sub-scales scores are influenced by emotional intelligence.

Jahanvash Karim (2010), examined whether employees differing in emotional intelligence level would differ in their emotional labour styles and whether these styles would mediate the impact of emotional labour on psychological distress. To test the relationships, data was collected from employees of three public sector organisations situated in Quetta, Pakistan. After establishing the psychometric properties of the scales hypotheses were tested through Partial Least Squares (PLS) path modelling algorithm. The findings of the study clearly indicated that emotional intelligence was positively and significantly correlated with deep acting. Surface acting was found to be positively and significantly related with psychological distress and neither surface acting nor deep acting mediated the relationship between emotional intelligence and psychological distress.

K. Ravichandran (2011) undertook a study to understand the impacts of emotional intelligence on work engagement behaviour. A samples of 119 employees from information technology services and Information technology enabled services of Chennai city in India was selected for the study through purposive sampling technique. Information was collected by distributing a self administered questionnaire to them. Emotional intelligence was measured using the 33-item Schutte Self-Report Inventory (SSRI) developed by Schutte and colleagues (Schutte et al, 1998) and work engagement by the shortened version of the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2006). The SPSS version 14 and other statistical tools like Cronbach's Alpha Reliability Test, Correlation, Chi – Square Test, One – Way ANOVA, Post – Hoc Test, Factor Analysis and Regression Analysis were used for the research study and analysis. The results of the study revealed a linear association between emotional intelligence behaviour and work engagement behaviour.

In a study **R. Krishnaveni (2011)** diagnosed the emotional intelligence levels of the IT/ITES employees in India. The data for the study was collected from a sample of 533 IT/ITES employees selected from major IT hubs of South India namely Bengaluru, Hyderabad, Chennai and Coimbatore. A tool was developed specifically for India to measure the emotional intelligence level.

The results of the study indicated that emotional intelligence level of the IT and ITES sector is on the higher side. IT/ITES work force has high emotional intelligence and gender and age have an impact on Emotional Intelligence. According to the results women had scored higher than men in perception and overall EI. The age group of 41 to 60 had scored higher in regulation. The study revealed a significant correlation between EI and its constituents and correlation was not significant between age and EI.

Van Dusseldorp LR (2011), undertook a study to investigate the the level of emotional intelligence of mental health nurses in the Netherlands. The emotional intelligence of 98 Dutch nurses caring for psychiatric patients was reported for the study. The Data for the study was collected from nurses using Bar-On Emotional Quotient Inventory and the research design was cross-sectional. The results of the study showed that the mean level of emotional intelligence of nurses is statistically and significantly higher than the emotional intelligence of the general population. Female nurses scored significantly higher than men counterparts on the subscales of Empathy, Social Responsibility, Interpersonal Relationship, Emotional Self-awareness, Self-Actualisation and Assertiveness. The study couldn't find any correlations between years of experience and age on the one hand and emotional intelligence on the other hand. The results further indicated that nurses in psychiatric care score above average in the emotional intelligence in order to cope with the amount of emotional labour involved in daily mental health practice.

Rinju George (2012) undertook a quantitative way study to identify the role of emotional intelligence on stress and coping mechanisms of gifted adolescents. A sample of 145 gifted adolescents (60 males and 85 females from different schools of Kannur, Calicut and Malappuram districts of Kerala were selected for study through

purposive sampling technique. Stress Scale, Coping Scale and Emotional Intelligence Scale were the tools administered for the study and analysis of variance was used for data analysis.

The findings of the study revealed that low emotional intelligence will result in high stress and high emotional intelligence will result in low stress. The results indicated that gifted adolescents with high emotional intelligence will adopt more problem focused approach rather than others and they are different from other groups.

Fatemeh Dehghan (2013) undertook a research study to investigate the relationship between emotional intelligence and organisational commitment among education ministry staff in Golestan province in Iran. The study was descriptive and correlational and the data for the study was collected from a sample of 285 staff members using questionnaire method. The study was undertaken with a view that in human resources management of education ministry the emotions play a key role. Emotional intelligence is thought as one of the most striking factors of quality development in educational content since human nurture is the result of a mutual process. Emotions and feelings are an essential part of any human personality and human pulses play a very key role in one's life and relationships. The result of the study showed a significant relationship between emotional intelligence and organisational commitment in education ministry. The findings revealed a relationship between self-awareness, self-management, social awareness and organisational commitment. It further indicated that emotional intelligence dimensions have predictability power of organisational commitment.

In a study **Janis Maria Antony (2013)** assessed the emotional intelligence, organisational commitment and organisational citizenship behaviour of executives along with the impact of emotional intelligence on other two variables. The data for the study was collected from a sample of 115 executives working at FCI OEN Connectors Ltd., Cochin. Emotional intelligence inventory (Meera Shanker and Omer Bin Sayeed, 2006), The organisational commitment questionnaire (Mowday et.al.,1979) and The organisational citizenship behaviour scale (Biswajeet

Pattanayak, Rajnish Kumar Misra and Phalgu Niranjana, 2003) were the tools used in the study.

The results of the study indicated that executives possess an average level of Emotional Intelligence, Organisational Commitment and Organisational Citizenship Behaviour. A positive correlation was found between Emotional Intelligence and Organisational Commitment as well as Emotional Intelligence and Organisational Citizenship Behaviour.

Michael T. Brannick (2013), attempted to determine whether emotional intelligence predicts measures of success in medical school beyond cognitive ability and personality tests and whether a self report or ability based test of EI would provide superior predictive validity. Data was collected from medical students administering two EI tests, including the Wong and Law Emotional Intelligence Scale (WLEIS) and the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). Correlations between EI measures and success criteria were computed. Results indicated that Wong and Law Emotional Intelligence Scale scores did not correlate significantly with any of the criteria, but scores from the MSCEIT were correlated with grade point averages in medical school years three and four. Multiple regression results showed that neither test of emotional intelligence added predictive value beyond cognitive ability and personality.

Ameneh Aghabozorgi et al. (2014) undertook a descriptive correlation study to examine the impact of emotional intelligence on organisational commitment of nurses in public hospitals. The data for the study was collected from a sample of 320 nurses from the public hospitals of Sanandaj in Iran. The data was collected from sample through survey method with two measures namely, Brad berry and Greave Emotional Intelligent Measurement Test (2005) and organisational commitment questionnaire by Mowday *et al.,* (1979). Pearson correlation coefficient was used to test the hypotheses.

The results of the study revealed a significant and positive relationship between emotional intelligence and organisational commitment in nurses of the public hospitals ($r = 0.76$). All four components of emotional intelligence namely

self-management, self-awareness, relationship management and social awareness were found to be positively correlated with organisational commitment.

In a descriptive and quantitative study **Anand Nagrecha (2014)** attempted to understand the emotional intelligence level of the working professionals in Gujarat and to explore the relations of demographic variables with emotional intelligence. The data for the study was collected from sample of 110 working professionals from Gujarat using a structured questionnaire. The statistical analysis was used to find out the results. The results of the study indicated that EQ level of professionals is high and there is a lack of awareness regarding EQ skills and its importance. The findings revealed that age can predict the EQ level whereas the gender is independent of EQ level.

Yun Zhu (2015), explored the impact of organisational justice and emotional intelligence on work engagement of nurses in China. The mediating role of organisational justice was also examined to in the model. A descriptive and cross-sectional design was employed in the study. The data for the study was collected from a total of five hundred and eleven nurses working in four public hospitals. Multistage sampling technique was used for the purpose of sampling. The tools adopted for data collection were Wong and Law Emotional Intelligence Scale, Organisational Justice questionnaire and the Utrecht Work Engagement Scale. Structural equation modelling was used for analysis of the data. The results of the study indicated that emotional intelligence and organisational justice are significant predictors of work engagement. Both accounted for forty four percent of the variance in work engagement. An indirect impact of emotional intelligence on work engagement via organisational justice was confirmed through bootstrap estimation. The results clearly indicated that organisational justice and emotional intelligence can predict positively the work engagement. Relationship between emotional intelligence and work engagement was found to be partially mediated by organisational justice.

TT, S. (2017), undertook a comparative, descriptive and correlational study to compareop psychiatric-mental health nurses' scores on the Mayer-Salovey-

Caruso Emotional Intelligence Test (MSCEIT) to a normed population with the emotional intelligence (EI) scores of psychiatric-mental health nurses' on Mayer-Salovey-Caruso Emotional Intelligence Test MSCEIT and Self-Rated Emotional Intelligence Scale (SREIS). The data for the study was collected from nurses working psychiatric-mental healthcare sector. The results of the study showed a higher mean Emotional Intelligence for psychiatric-mental health nurses compared with that of 5,000 participants in the normed MSCEIT sample. A very significant weak correlation was found between the perceiving and understanding emotion branches of the MSCEIT and SREIS. The findings of the study revealed relevant data about the emotional intelligence levels of psychiatric-mental health nurses in the United States that encouraged more dialogue about emotional intelligence among psychiatric-mental health nurses.

2.3 Work Engagement

Gregory B. Stevens (1983) conducted a research study to explore the expectation and burnout level in the developmental disabilities field. Staff members at workshops and community residences for the developmentally disabled members were selected as respondents for the study. The psychological burnout along with expectation for client progress was assessed using measurement instrument. According to the results the participants reported a change in expectation as they enter the field. Employees having large negative expectation were found to be most burned out and the high expectations were mainly correlated with low burnout. Workers who shifted from relying on client progress to a feeling of personal efficacy were identified as not burned out. However the study didn't produce any evidence for client depersonalisation which was considered as a component of burnout.

Shinn M (1984) conducted a study to understand the coping with job stress and burnout in the human services. The data for the study was gathered thorough a mail survey of 141 human service workers. The survey was developed to investigate the effects of coping on burnout and psychological strain caused by job stress. Job stressors and coping strategies were assessed with open-ended questionnaire while strain was measured using a closed-ended satisfaction, alienation and symptom

scales. Existing research studies have suggested that individual coping responses can't alleviate strain and tension caused by job stress. Thus the instruments in the current study collected information on group coping or social support and on coping strategies undertook by respective agencies. The results of the study indicated that job stress is associated with high levels of strain while the coping is correlated with low levels strain. Individual responses were found to have very little effect. The findings revealed that the actual use of many strategies that can be used to reduce stress as identified by workers was too slight. Woman expressed more social support than man and no sex difference was predicted in individual coping. The results couldn't produce any evidence for moderating effects of stress and coping on strain.

Kahn (1990) conducted a study to investigate psychological conditions of personal engagement and disengagement at work. The study was undertaken based on the assumption that people has various degrees of physical, cognitive and emotional experiences in work role performances that have implications for both work and experience. To identify the conditions at work in which people personally engage two qualitative theory generating studies were conducted among summer camp counsellors and members of an architecture firm. From this study he explored how employees personally engage or express their personal selves as well as how they disengage or withdraw from their personal selves. Finally the author described three psychological conditions of employees along with the contextual and individual backgrounds. These three psychological aspects \ are consisted of meaningfulness, safety and availability which are related to previous theoretical directions.

Michael P. Leiter (1998) conducted a study about the correspondence of patient satisfaction and nurse burnout. The study investigated the relationships among nurse burnout, intention to quit and meaningfulness of work. 16 inpatient units from two hospitals were selected as population from which 605 patients and 711 nurses were selected as respondents. The data was collected from the sample through a staff survey. The survey assessed patient satisfaction with nursing care, physician care and coordination of care and the outcomes of the hospital stay with

post-discharge. The relationships of the nurses with their work were corresponded with patients' perceptions about the quality of care. The results of the study revealed that patients will be more satisfied with their stay in hospital if the nurses there find their work meaningful. If the nurses feel more exhausted or express their intention to quit, it will lead to the dissatisfaction of the patients with the components care. The findings didn't produce any significant associations between nurse's professional efficacy and the component of patient satisfaction. According to the study cynicism of nurse will lead to the less satisfaction of patients in their interactions with nurse. The study failed to find out any statistical significance for the correlations between cynicism and other dimensions of care.

Evangelia Demerouti (2000) undertook a study to test a model of burnout and overall satisfaction among nurses. Life satisfaction, burnout, job demands and job resources were selected as major variables in this study. The data was collected from a sample of 109 German nurses through survey method. The model was mainly set to discriminate between two different conceptual categories of working condition as job demands and job resources. Structural Equation Modelling (SEM) was used to test the relationships among the variables of model. The model of burnout and life satisfaction proposed that job demands are most strongly correlated with feelings of exhaustion and job resources are most strongly correlated with disengagement. Results showed that effect of job resources and job demands on life satisfaction is mediated by burnout. It further revealed that the job demands and job resources have strong effects on exhaustion and disengagement respectively.

Pascale M. Le Blanc (2001) explored the relationship between different types of job demands and burnout in a sample of oncology care providers using the traditional JD-C Model. They wanted to understand whether oncology care providers with high susceptibility to emotional contagion experience more burnout when confronted with high emotional job demands than oncology care providers with low susceptibility to emotional contagion. The data for the study was collected from 816 Dutch oncology care providers consisting nurses, physicians and radiotherapy assistants. Susceptibility to Emotional Contagion' was set as a potential

moderator of the relationship between burnout and emotional job demands and the data was analysed with multivariate moderated regression analysis.

The results of the study indicated that emotional job demands will significantly contribute to the prediction of burnout after controlling for quantitative job demands and job control. Further it confirmed that susceptibility to emotional contagion of oncology care providers should moderate the relationship between 'confrontation with death and dying' and 'burnout'. The results of the study indicated that emotional job demands will significantly contribute to the prediction of burnout after controlling for quantitative job demands and job control. According to the findings the care providers who are high in susceptibility to emotional contagion are more vulnerable to the stress and difficulty associated with high emotional demands while their counterparts with low susceptibility are less vulnerable. The findings revealed the importance of training health care providers especially those who work with critically ill patients, in coping with emotionally demanding job situations.

Harter J. K. (2002) undertook a study to summarise findings linking employee engagement with other business outcomes like customer satisfaction, profitability, employee turnover and productivity. The study examined the business-unit-level relationships among variables. The data for the analysis was collected from the Gallup Organisation for 7,939 business units at 36 organisations representing 21 industries. Engagement was measured by the 13-item Gallup Workplace Audit instrument. Meta-analysis was undertaken to summarise the relationships between engagement and outcome across business units and companies.

The results of the study revealed that employee engagement is highly related to business unit outcomes. It has strongest effects for employee turnover, customer satisfaction and safety. Meanwhile productivity and profitability are found to be weakly related to engagement as they are affected by many other factors besides employee performance. Engagement and satisfaction was correlated with

performance measures of turnover, safety, profitability, customer satisfaction and productivity.

Wagner (2006) analysed the data collected by Gallup instrument from over ten million data sets across one hundred countries from different industries. The focus of the study was to find out the relationships between overall employee engagement and certain outcome variables. The results of the study indicated that the engaged employees are happier employees and produce increased profit. They can exhibit high levels of creativity and will experience very less level of absenteeism. They have least on-the-job accidents and will positively affect business unit level outcomes. The findings revealed that relationship between engagement and performance at business unit level is highly generalisable across companies. When the organisations with highly engaged employees were compared with organisation of low engagement, it was found that organisation with highly engaged employees has 27% less absenteeism, 51% less turnover and 51% less employee theft.

Wilmar B. Schaufeli (2006) attempted to develop a short questionnaire to measure work engagement. The data for the study was collected from a sample of 14521 participants in ten different countries. The results of the study indicated that the original seventeen item Utrecht Work Engagement Scale can be shortened to nine items (UWES-9). Confirmatory Factor Analyse (CFA) was used to demonstrate the factorisation validity of the shortened scale. CFA explored good internal consistency and test-retest reliability for all scales. The two-factor model that included exhaustion and cynicism was best fit to the data. Further the results confirmed that work engagement is a positive antipode of burnout. However it was concluded that the scores of shortened version has acceptable psychometric properties that guaranteed the instrument can be used in research studies on positive organisational behaviour.

In a study **Michael P. Leiter (2009)** examined whether the burnout hypothesised as a mediation model can predict the turnover intentions of nurses. Areas of work-life, burnout, and turnover intentions were selected as variables for

the study. The data was collected through survey from a sample of 667 Canadian nurses in the Atlantic Provinces. The tools used in the study to measure variables were Maslach Burnout Inventory-General Scale (MBI-GS; Schaufeli et al. 1996), The Areas of Worklife Scale (AWS; Leiter & Maslach 2004) and Turnover intentions measure (Kelloway et al. 1999). The collected data were analysed using SPSS.

The findings of the study revealed the supporting results for the mediation model of burnout. Among the variables areas of work-life predicted burnout and burnout predicted turnover intentions. Cynicism was found to be the key burnout dimension for turnover. According to the results the most critical areas of work-life were value conflicts and inadequate rewards.

Piia Seppala (2009) examined the factor structure, time invariance and factorial group of the seventeen-item and nine-item versions of the Utrecht Work Engagement Scale (UWES) as developed by Schaufeli. The study also investigated the rank-order stability of work engagement. The data for the study was collected from a sample consisting 9404 Finnish participants using Finnish translations of the UWESs 17 and 9. The three factor structure that included vigor, dedication and absorption for both Utrecht Work Engagement Scales (UWES-17 and UWES-9) was supported by the Confirmatory Factor Analysis (CFA). The results of the study revealed that the structure of the seventeen-item scale wouldn't remain the same across the samples and time while the structure of the nine-item shortened scale will remain relatively stable and unchanged. This postulated that the shortened nine item version of UWES has good construct validity and its use should be recommended for future research studies. The Structural Equation Modelling (SEM) showed high rank-order stabilities for the work engagement factors that ranged between 0.82 and 0.86. Further the study concluded that work engagement is the highly stable indicator of occupational wellbeing.

Yseult M. Freeney (2009) explored the pattern of nurse's experience about their work environments. The study was limited to examining the important factors in the workplace that act as barriers to work engagement. The study was undertaken

with an explorative qualitative design using semi-structured focus groups. The data for the study was collected from these focus employee groups that included a total of twenty nurses working in psychiatric and general nursing. The results of the study revealed that the facilitators and barriers to engagement are accumulated in six areas of organisational life. These six areas of organisational life were explained workload, control, reward, fairness, community and values.

In a descriptive and correlational study **Cristina Jenaro (2010)** examined the association between nurses' individual characteristics, job features and work engagement. The data for this study was collected from a convenience sample of 412 nurses over a 7-month period (2006–2007) from a public Hospital Complex located in the city of Salamanca. Work Engagement Survey, the General Health Questionnaire, and an ad hoc survey were the measures utilized in the study. Statistical Package for the Social Sciences, 14 (SPSS Inc., Chicago, IL, USA) was used for data analysis.

The results of the study indicated that nursing staff experience a variety of psychological distress symptoms regardless the professional category or the length of service. Compared with other groups the scores for nursing managers were significantly higher in several job stressors. Of nurses experiencing work engagement, absorption is the most prevalent factor, followed by dedication and then vigour. 33% of the nurses experienced high dedication, 20% experienced high vigour and 36% experienced high absorption.

Nilay Gemlik (2010) investigated the relationship between burnout and organisational commitment among health sector staff in Turkey. The data for the study was collected from a sample of 459 health sector staff from Medicine Faculty Hospitals of Istanbul including doctors, nurses, and managers. Two measuring tools namely, The Maslach Burnout Inventory (MBI) and Allen and Meyer's Organisational Commitment Scale were used in this study. Multiple regression analysis was used for data analysis.

The results of the study indicated the existence of relationship between burnout and the organisational commitment that means that burnout leads to reduced

organisational commitment. A linear relationship was found between emotional exhaustion and affective and normative commitment. "Emotional exhaustion" has a meaningful descriptive power on the "affective commitment" and "normative commitment" sub-factors of organisational commitment.

Bakker (2011) explored and evidence based model of work engagement in which he discussed the phenomenon of work engagement and its antecedents and consequences. He outlined in this model engaged employees stay engaged. The article presented that engaged employees are connected with their work roles, they are filled with energy and dedicated towards their works. According to the review of literature the personal and job resources were found as the main predictors of work engagement. Further the report stated that workers who are engaged in their jobs will be more open to the information, willing to go extra mile and more proactive to change the work environments. The work engagement was explained as an important indicator of occupational wellbeing for both organisation and employees.

Richa Chaudhary (2011) undertook a study to explore the impact of Human Resource Development (HRD) climate on employee engagement in select business organisations in Indian along with the interrelationship between factors of HRD Climate and employee engagement. A sample of 85 middle and senior level business executives from both private and public sector manufacturing and service firms in India was chose for the study. Utrecht Work Engagement Scale (UWES) developed by Schaufeli et al. (2002) and a 38 items HRD Climate survey instrument by Rao and Abraham (1986) were used to measure the study variables. Data was analyzed using correlation and regression analysis. The results of the study revealed that HRD Climate is correlated positively with employee engagement where 44.1% of the variation in the engagement level of employees was explained by HRD Climate. The general climate dimension of HRD Climate was found to be the most significant predictor of employee engagement followed by the HRD mechanism dimension.

Siw Tone Innstrand (2012), conducted a longitudinal study to explore the dynamic relationship between work engagement consisted of vigor and dedication and symptoms of anxiety and depression. The data for the study was collected from

a sample of 3475 respondents from eight different occupational groups that included lawyers, physicians, nurses, teachers, church ministers, bus drivers, people working in advertising and people working in information technology in Norway. The data was obtained from the sample at two points in time with a two year time interval. The researcher was careful in utilizing the advantages of longitudinal design including testing of reversed causation and controlling for unmeasured third variables. The results of the study showed that the hypothesized normal causal relationship is superior to a reversed causation model. The study supported the assumption that work engagement is more likely to be the antecedent for symptoms of depression and anxiety than being an outcome. The findings concluded that the vigor component of work engagement will provide lower levels of depression and anxiety. According to the results, both stable and unstable unmeasured third variables are likely to explain some of the relationship between vigor and dedication and symptoms of anxiety and depression. The additional analysis of modelling in unmeasured third variables indicated that unknown third variables can create some spurious effects on the pattern of the observed relationship.

In a research **Thor (2012)** sought to understand the relationship between a process improvement expert's emotional intelligence and level of work engagement. The Assessing Emotions Scale (Schutte, Malouff, & Bhullar, 2009) that uses the Mayer and Salovey (1997) construct was used to measure emotional intelligence. The Utrecht Work Engagement Scale was used to measure work engagement. Both surveys were administered online to process improvement experts associated with the American Society for Quality (ASQ). A criteria-based sampling strategy was used to ensure expertise and a total of 5,187 U.S. and Canadian process improvement experts responded the survey. Data were analyzed in multiple phases beginning with correlation. Regression analysis and analysis of variance (ANOVA) were used in further stages of analysis.

The results of the study established a moderate statistically significant relationship (r = .416) between emotional intelligence and work engagement. According to the values of regression analysis emotional intelligence predicted 17.3

percent of the variance in work engagement. Demographics like gender, organisational level and education were found to significantly impact emotional intelligence and age was found to have no any effect on emotional intelligence. Variables like education, experience, organisational level, and no certification were found to significantly affect work engagement. Demographics like age, certification of Six Sigma, gender, and gender was found not to be associated with work engagement.

Dumisani Mathumbu (2013) explored the relationships among work engagement, perceived organisational support and organisational citizenship behaviour of nurses at the Victoria hospital in Alice, Eastern Cape, South Africa. A sample of 106 nurses was selected for study through random sampling method. The survey for perceived organisational support (SPOS) by Eisenberger et al. (1986) was used to measure perceived organisational support. Work engagement was measured using the Utrecht Work engagement Scale (UWES) and organisational citizenship behaviour was measured with Koys' (2001) five item Likert scale. Pearson product moment correlation coefficient was used to test the relationship between the variables.

The results of the study indicated that perceived organisational support, work engagement and organisational citizenship behaviour are significantly correlated in the rural healthcare environment. Work engagement is highly significantly and positively associated with organisational citizenship behaviour. Perceived organisational support is positively related with organisational citizenship behaviour and moderately correlated with work engagement.

Elena Fiabane (2013) identified in a study how organisational and personal factors predicted work engagement in a sample of nurses and hospital staff. It compared work engagement and occupational stress perception across health professionals including registered nurses, nurse aides, physicians and physiotherapists. 198 healthcare professionals were selected as sample. The instruments used in the study were The Maslach Burnout Inventory–General Survey (MBI-GS; Schaufeli et al. 1996) for measuring work engagement, The Areas of

Work life Scale (AWS; Leiter & Maslach 2004) to assess organisational factors and The Occupational Stress Indicator (OSI; Cooper et al. 1988) to assess personal factors. SPSS, version 13.0 was used for statistical analyses.

The results of the study indicated that both organisational and personal factors are associated with work engagement of hospital staff where the most important organisational predictors are workload, values and community. According to results physiotherapists possessed the highest degree of occupational stress and disengagement in work. Nurse aides were found to score more on work engagement job satisfaction scales as they perceived positively the variables of work environment.

Ilka Beukes (2013) tried to correlate organisational commitment with work engagement and meaning of work. The sample for the study included one hundred and ninety nine permanent and temporary nurses working in private hospitals. The sample included black, white and Indians. The tools used in the study were Organisational Commitment Questionnaire (OCQ) to measure organisational commitment, the Utrecht Work Engagement Scale (UWES) to measure work engagement and Work-Life Questionnaire (WLQ) to measure meaning of work. Statistical analysis was carried out by the help of SPSS.

The results of the study indicated that organisational commitment and work engagement are positively correlated. Highly committed nurses were found to be highly engaged in their work and highly engaged nurses were found to be highly committed to their organisation. Organisational commitment and work engagement was also found to be related with calling. This apparently exhibited that nurses having the view of calling will be highly committed to the organisation and engaged in the work.

Jazreel Hui Min Thian (2013) conducted an integrative literature review of stress, positive affectivity and work engagement among nurses. The aim of the review was to summarise empirical evidence related with job stressors in nursing populations. Relevant studies published between 1996 and 2012 were reviewed using specific search strategies and multiple key words. According to the review the

common job stressors among nurses were identified as role stress, job demands and interpersonal conflicts at work. Positive Affectivity was found to be negatively associated with burnout while it was found to be positively associated with job satisfaction and social support. The potential predictors of work engagement include heavy workload, perception of reward and appreciation and stress related with care giving. The relationship between positive affectivity and work engagement was not supported by any empirical evidence.

Yvonne Brunetto (2013) examined the effect of workplace relationships on organisational commitment, turnover intentions, engagement and wellbeing of nurses working in hospitals. The sample for the study consisted of 510 randomly selected nurses from Australian hospitals and 718 nurses from USA hospitals. A self-report survey was used to collect data for this study in 2010-12 from this sample. A multi-group structural equation modelling analysis was used to identify significant paths and compare the impact between countries.

The results of the study revealed that wellbeing is a predictor of turnover intentions among nurses which means that healthcare managers need to consider nurses' wellbeing in everyday decision-making. Nurses with high well-being are committed to nursing and will probably remain nursing. Results indicated that this model is more effective in predicting the correlations between variables for nurses in Australia compared with USA.

Mai Ngoc Khuong (2014) empirically investigated the effect of leadership styles on employee engagement in Binh Duong City. The effect of employee sociability on employee engagement and its mediation were also explored in the study using a quantitative by the means of statistical techniques like factor, multiple regression, and path analyses. The unit of analysis involved individual level and the sample size was 269 office employees from five dominant industries in Binh Duong. The findings of this study indicated that the higher levels of employee sociability, ethical leadership and visionary were positively associated with the higher level of the employee engagement. In contrast, the transactional leadership style had negatively correlated with the employee engagement. The study also revealed that

ethical leadership and visionary leadership can positively affect employee sociability. The conclusions made in this study recommended that companies should apply visionary leadership and ethical leadership to enhance engagement of employee and avoid or limit using transactional leadership styles. The results suggested that companies should select employee with high sociability in order to have higher level of employee engagement.

Syed Mohammad Azeem (2014) explored the relationships between various role related stressors and dimensions of burnout among nurses working in the private hospitals in India. A sample of 175 female nurses working in the private hospitals in northern region of India was used in this study. The Maslach Burnout Inventory-Human Service Survey (MBI-HSS; Maslach & Jackson, 1996) and occupational role questionnaire (ORQ) of OSI-R (Osipow, 1998) were the tools used in the study to measure burnout and roles stressors respectively.

The findings of the study revealed a moderate level of stress and burnout among the nurses working in the private hospitals. Role related stressors were significantly related to all burnout dimensions. The results of regression analysis revealed that role overload and role insufficient were significant predictors of emotional exhaustion. The significant predictors of personal accomplishment were role insufficient, role ambiguity and role boundary. Role overload, role insufficient and role ambiguity were found to be significant predictors of depersonalization.

In a quantitative study, **Upasna A Agarwal (2014)** examined what effects the contextual variables, trust and organisational justice has on work engagement. It included the variables of procedural justice, interactional justice, psychological contract and the engagement levels of Indian managers. Three hundred and twenty three managers from manufacturing and pharmaceutical sectors from institutions in western India were selected as sample. Data for the study was collected cross-sectionally from the sample.

Results of the study suggested the positive and significant relationships of interactional justice, procedural justice and psychological contract fulfilment with work engagement. Results indicated that trust factor is mediator in these

relationships. Employees' innovative work behaviour was found to be significantly influenced by work engagement.

Vegsund (2014) examined the relationship among work engagement, social support from supervisors, job autonomy and workload among Norwegian nurses. The study was undertaken on a longitudinal basis and a self-reported survey was used to collect data for hypothesis testing. The required data was collected from a sample of Norwegian nurses (n=1000) from 2003 to 2005.). The association between the variables was tested using Structural equation modelling.

The finding of the study suggested that nurses` work engagement is related to features in the work environment. It revealed a long-term negative association between workload and work engagement that was significant in both regular and reversed models. According to the results social support showed a positive significant relationship with dedication component in both the regular and reversed models while it failed to show a significant association with vigor component. Autonomy was found not to be significant related to work engagement.

In a non-experimental approach **Herholdt (2015)** tested a structural model that explained the antecedents of variance in organisational citizenship behaviour (OCB) and work engagement (WE) among nurses in private South African hospitals. A sample of 199 nurses from four private hospitals was selected for study and a self administered questionnaire was distributed among them. The questionnaire included the measurements; Utrecht Work Engagement Scale (UWES), Organisational Citizenship Checklist (OCB-C), Servant Leadership Questionnaire (SLQ), Psychological Capital Questionnaire (PCQ) and the Bern Illegitimate Task Scale (BITS) to collect the data on all five variables, namely work engagement, organisational citizenship behaviour, servant leadership, psychological capital and illegitimate task. The data collected was analysed by means of item analysis and structural equation modelling.

The findings of the study revealed that servant leadership, as a job resource and Psychological Capital, as a personal resource are positively related to work engagement of nurses. The illegitimate task, as a job demand, is negatively related to

work engagement of nurses. The results also indicated that Psychological Capital was positively related to organisational citizenship behaviour.

Upasna A Agarwal (2015) examined the relationship between Perceived Organisational Support (POS), Work Engagement and Organisation Citizenship Behaviour with Affective Commitment as a mediator and psychological contract breach as a moderator. The data for the study was collected from a sample of 475 nurses from nine private hospitals in India. An eight item POS scale developed by Eisenberg et al. (1990), seven item OCB scale developed by Podsakoff, MacKenzie, Moorman, and Fetter (1990), a six item OC scale developed by Meyer, Allen and Smith (1993), a four items PCB scale adapted from Rousseau (2000) and Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2006) were the measurements used in this study.

The results of the study indicated that affective commitment mediates the positive relationships between perceived organisational support and work outcomes like work engagement and organisational citizenship behaviour. The study further revealed that psychological contract breach qualifies relationships between perceived organisational support and work outcomes like work engagement and organisational citizenship behaviour meaning that the relationships between perceived organisational support and outcomes are stronger in case of low contract breach perceptions.

2.4 Organisational Commitment

In a longitudinal study **Lyman W. Porter (1974)** investigated the different patterns in organisational commitments and job satisfaction across time along with its relationships to turnover. The study was undergone on a sample of two groups from psychiatric technician trainees in a major state mental hospital for mentally retarded. The demographic characteristics of these two groups were similar and their clinical tasks were feeding, dressing and behaviour shaping of patients. The data was collected through an organisational commitment questionnaire consisting 15 items and a job descriptive index to measure satisfaction in five aspects of the job. For the

purpose of analysis the sample was divided into two categories of stayers and leavers.

The finding of the study proved that commitment and satisfaction are correlated each other sharing approximately 44% of common variance where organisational commitment is the better predictor of turnover than job satisfaction. It revealed that general attitudes towards an organisation are more important in the decisions than specific attitudes towards particular job. Age was found to be an important moderating variable in the relationship between job satisfaction and subsequent turnover.

In a study **Steers (1977)** used a cross validation framework for testing a preliminary model that examined the antecedents and outcomes of employee commitment to organisations. The study was undertaken among two types of samples from different organisations. The first one included 389 registered nurses, licensed vocational nurses, administrators and others from a Midwestern hospital and the second sample consisted of 119 research scientists and engineers of a major research laboratory holding technical and administrative positions. Personal characteristics, job characteristics, work experiences, organisational commitment, desire and intent to remain and some behaviour were the variable measured in the model. The data was collected from the sample through questionnaire survey.

The study findings indicated that all three sets of antecedents (Personal characteristics, job characteristics and work experiences) were significantly related with commitment in both samples representing that these antecedents have important influence on commitment. The Pearson product-moment correlations between commitment and outcome variables revealed that commitment is strongly related with desire to remain and intent to remain in both samples and moderately with the attendance and turnover of scientists and engineers not of hospital employees.

Thomas S. Bateman (1984) undertook a longitudinal study to examine the different antecedents of organisational commitment and its mutual relationships. The study was primarily a predictive one to predict the employee turnover including the

organisational commitment, job satisfaction, and other predictor variables. Study was undergone in the nursing field collecting data from 129 nursing departments of four hospitals located in a large southern city. Required data was collected through self-administered questionnaire measuring 13 variables where organisational commitment was set as focal outcome variable. Organisational commitment was measured with a 15-items scale developed by Porter et al. (1974) and leader reward and punishment behaviours were measured using the scale of Johnson (1973). Job diagnostic survey (Hackman & Oldham, 1975) was used to measure job characteristics and a six item scale of perceived participation in decision making by Morris and Steers (1980) was used to measure the centralization. Need for achievement was measured with Steer's (1975) short five item scale while Perceived environmental alternatives were measured with a three item scale. Finally the job tension was measured using job related tension scale developed by Kahn, Wolfe, Quinn, Snoek and Hulin (1969).

The analysis of the data revealed that organisational commitment is an important antecedent to job satisfaction rather than an outcome of it. The study results also indicated that other variables are causally related to job satisfaction but not commitment. According to the results the commitment was thought to be a construct and not a consequence of satisfaction.

Natalie J. Allen (1990) conducted two studies to test various aspects of a three component model of commitment. They developed a three-component model of commitment based on their observation that all the existing definitions of commitment at that time reflected at least three distinct themes. The three components include affective commitment, continuance commitment and normative commitment. The affective commitment was described as affective emotional attachment towards an organisation and continuance commitment was described as the recognition of costs associated with leaving an organisation. Normative commitment was explained as employees' feeling of an obligation to remain with an organisation. The results of canonical correlation analysis indicated that the continuance commitment and affective commitment among organisational

commitment components are theoretically and empirically distinguishable constructs.

Baugh and Roberts (1994) examined the relationships between organisational commitment and professional commitment along with its effects on organisational outcomes such as job satisfaction, job performance and job problems. The study was undertaken in engineering work environment and the data was collected from 114 engineers in bureaucratic work environment.

The results and findings of the study revealed a significant and direct effect of organisational commitment on job satisfaction and job performance while it showed an inverse effect on job problems. The study concluded that professional commitment is more significant in relation to job performance. The results further stated that highly committed employees have higher levels of satisfaction and job performance where low committed employees has lower levels of job performance and job satisfaction. Committed employees having high expectations of job performance performs better.

Somers (1995) studied the relationships between affective, continuance and normative commitment and the job withdrawal intentions of turnover and absenteeism using a three component organisational commitment model. The data for the study was collected from a sample of 422 staff nurses with a mean age of 32 years from an urban hospital in the Northeastern United States. Allen and Meyer's (1990) eight-item scales of commitment and Bluedorn's (1982) scale were used for measuring commitment and job withdrawal intention.

The analysis of data using regression and logistic regression revealed that affective commitment component is the most consistent predictor of the outcome variables and is the sole predictor of turnover and of absenteeism in nurses. Further the results indicated that both affective and normative components of commitment are the predictors of intent to remain with the organisation.

Marcheta McGhee (1995) examined the job satisfaction and organisational commitment of rehabilitation counsellors working in public rehabilitation agencies

in the United States. The data for the study was collected from 44 rehabilitation counsellor of Connecticut who agreed to respond to the survey. Job satisfaction was measured using The Minnesota Satisfaction Questionnaire developed by Weiss, Dawis, England, & Lofquist, (1967). Organisational Commitment Scale developed by Allen and Meyer (1989) was used to measure organisational commitment of counsellors. The other potential predictor variables examined in the study were years of service, age, education level, Certified Rehabilitation Counsellor (CRC) status, conscientiousness, initiative, cooperation and attendance.

The study revealed that Connecticut's rehabilitation counsellors have the same patterns of job satisfaction and organisational commitment that have for the rehabilitation counsellors in the larger national sample. Work behaviours are the important predictors of overall job satisfaction, emotional, and normative attachment of counsellors in larger national sample. The study also concluded that counsellor behaviours of conscientiousness, cooperation, and initiative are the most important predictors of job satisfaction, normative commitment, and affective commitment and Connecticut's public rehabilitation agencies are encouraged to find out ways to rewarding those predictors.

Al-Aameri (2000) attempted to find out the relationship between organisational commitment and job satisfaction of nurses in public hospitals in Riyadh, Saudi Arabia and to examine the effect of nurses' demographic factors on these variables. 400 nurses from public hospitals of Saudi Arabia were selected as the sample using non probability sampling technique. Commitment was measured using Mowday and Steers's scale of commitment and job satisfaction was measured with Brayfield and Rothe's scale of general satisfaction. Descriptive statistics, ANOVA and SPSS package were used for the analysis of the data.

The results of the study showed a strong positive correlation between job satisfaction and organisational commitment. The study revealed that nurses are satisfied with their jobs to some extent and they are slightly committed to their hospitals where satisfied nurses generally tend to have a higher degree of commitment than less satisfied ones. Age of the nurses has significant correlations

with satisfaction and commitment while experience is correlated only with satisfaction. The analysis of variance (ANOVA) revealed that nurses' commitment differs according to their marital status and nationality, and the satisfaction differs only in terms of their nationality.

According to **O'Malley (2000)** the review of the commitment literature produces five general factors that can be related to the development of employee commitment which are:

- Affiliative Commitment: An organisation's interests and values are compatible with those of the employee, and the employee feels accepted by the social environment of the organisation.

- Associative Commitment: Organisational membership increases employees' self-esteem and status. The employee feels privileged to be associated with the organisation.

- Moral Commitment: Employees perceive the organisation to be on their side and the organisation evokes a sense of mutual obligation in which both the organisation and the employee feel a sense of responsibility to each other. This type of commitment is also frequently referred to in the literature as Normative Commitment.

- Affective commitment: Employees derive satisfaction from their work and their colleagues, and their work environment is supportive of that satisfaction. Employees who have high affective commitment are those who will go beyond the call of duty for the good of the organisation. In recent literature this form of commitment has also been referred to as 'engagement' and is the form of commitment that is most usually measured by organisations.

- Structural commitment: Employees believe they are involved in a fair economic exchange in which they benefit from the relationship in material ways. There are enticements to enter and remain in the organisation and there are barriers to leaving. This type of commitment is also frequently referred to in the literature

as Continuance Commitment. With reference to the above typology, when an organisation is considering assessing the commitment of its workforce, not only should it ask *how much* commitment exists, but also what *types* of commitment exist.

In a study titled 'A Nursing Shortage: Building Organisational Commitment among Nurses' **McNeese-Smith (2001)** investigated the nurse views on their organisational commitment, or lack of organisational commitment, and the various factors that affect these outcomes in. Views of nurses on their organisational commitment, or lack of organisational commitment was gathered through a semi structured interview guide with 22 questions developed to identify various factors that create organisational commitment, or lack of organisational commitment. Thirty staff nurses from six units including paediatrics of a large Los Angeles country hospital were selected as sample for study and were interviewed in private rooms by the researcher only. According to the findings of the study nurses considered nine factors as the contributors of their commitment. These are personal factors, opportunities for learning, job satisfaction, a plan to retire from the organisation, monetary benefits, patient care, co-workers, cultural factors and job security. Eight factors were enumerated by nurses as contributing to their lack of organisational commitment. These are conflict with personal needs, lack of learning, lack of appreciation/fairness, inadequate monetary benefits, patient care, poor relations with co-workers, career developmental stage and lack of job security. Out of these eight categories six items are direct opposites of those factors that create organisational commitment.

Lee (2001) empirically examined the Prosocial Organisational Behaviour (PSOB) among UK National Health Service nurses. The research was undertaken as a part of a larger study carried out at a London based NHS Trust hospital. The data was collected for analysis as part of a structured survey of nursing staff at the Trust. The research instrument used in the survey was a self-administered questionnaire that was distributed to the entire qualified nursing staff (n = 507) working in the hospital. Scale was developed to measure Prosocial Organisational Behaviour,

occupational commitment, organisational commitment and self efficacy. Prosocial Organisational Behaviour or Organisational Citizenship behaviour refers to such voluntary and discretionary contributions that are not prescribed within a job description and in considered as extra roles. Prosocial Organisational Behaviour (PSOB) is theoretically hypothesized to be a function of employees' willingness and capacity for PSOB performance where the willingness is derived from nurses' commitment and capacity from their self efficacy.

The results of this study indicated that Prosocial Organisational Behaviours are positively associated with both organisational commitment and self efficacy and its level was significantly explained by both commitment and self efficacy. The perceptions of organisational commitment and self efficacy are specially influenced by altruistic and service quality types of PSOB behaviours among nurses. The study found that the contributions of self efficacy and commitment to PSOB are independent and incremental. It further postulated that nurses' organisational commitment was more important rather than occupational commitment. More over committed nurses are more likely to engage in patient oriented and general altruistic PSOB as they feel to be competent on their job.

Bhatnagar (2005) measured psychological empowerment and organisational commitment of Indian managers to evaluate whether psychological empowerment is an antecedent of organisational commitment. The study was undertaken in a sample of 607 managers drawn from various organisations in India with a two-stage sampling design. The survey method was used for data collection where Psychological empowerment was measure using Spreitzer's (1995) standard scale and the organisational commitment was measured through Allen and Myer's (1990) organisational commitment scale. Descriptive and multivariate analysis, correlation analysis and multiple regression analysis, using the SPSS 11.5 statistical package were the tools administered for data analysis.

The results of the study supported the hypothesis that psychological empowerment is an antecedent of organisational commitment and its components. Psychological empowerment was found to be predicted by affective, normative and

continuance commitments in Indian samples. Psychological empowerment was considered as a predictor of organisational commitment of Indian managers. The level of psychological empowerment of power-sector managers was found to be the highest while the level of organisational commitment of the banking sector was the highest.

B. Karsh (2005) attempted to evaluate the predictors of commitment, satisfaction and turnover intentions. They examined whether job characteristics, work environment, participation in quality improvement activities and quality improvement can predict the commitment and job satisfaction of employees. It also explored the predictability of commitment and satisfaction towards turnover intention for nursing homes. A sample of six thousands and more nursing home employees from seventy six nursing homes in a Midwestern state was selected for the study. A self-administered questionnaire including 103 items divided into four sections was used to collect the required data. Correlation analysis, multiple regression equation and one logistic regression were used to test the hypotheses set.

All hypotheses were supported by the results of the study and job and organisational factors were found to predict commitment and satisfaction. Satisfaction and commitment predicted turnover intentions among employees. The results illustrated that organisational work pressure, having a work schedule that meets one's needs, feeling physically safe at work, receiving feedback and organisational quality environment indirectly affect nursing home turnover intentions through employee job satisfaction and commitment. Further the results showed that satisfaction and especially commitment predicted turnover intentions.

Karthik Namasivayama (2007) investigated the relationships between work family conflict, job satisfaction and organisational commitment among hospitality employees in India along with moderating effects of organisational commitment on the relationships. The requisite data for the study was collected from the employees of a large independently owned hotel in India. 120 surveys were distributed to the employees through the training manager and 93 out of it were returned. Job satisfaction scale adapted from the Michigan Organisational Assessment

Questionnaire, Work family conflict scale reported in Boles et al. (2001) and organisational commitment scale adapted from items of Meyer et al. were used to measure the variables.

The analysis of the data to find out direct and moderating relationships of three sub dimensions of organisational commitment demonstrated that the affective component of organisational commitment has stronger direct effects on job satisfaction than normative organisational commitment and continuance commitment had no any effect. The hierarchical linear regression analyses of the data revealed that one of two sub dimensions of work family conflict, namely, family related roles interfering with work related roles was negatively associated with job satisfaction. The study further revealed that employees' affective commitment moderates the effects of one dimension of work family conflict on job satisfaction.

Liou (2007) investigated the relationships between collectivist orientation, perception of practice environment, organisational commitment, and intention to leave current job among Asian nurses working in the U.S. to understand factors related to turnover among Asian registered nurses (RNs) working in the U.S. a cross-sectional, correlational, and descriptive research design was set up for the purpose of the study. The instruments used to measure Asian registered nurses' level of collectivist orientation, perception of practice environment, organisational commitment and intention to leave current job were collectivist orientation scale, practice environment scale of the nursing work index, organisational commitment questionnaire, and anticipated turnover scale respectively. A snowball of 120 registered nurses Asian nurses working in any type of hospital in the U.S. were selected as sample. Data was analysed using descriptive statistics, Pearson coefficients, hierarchical regression, correlation and the Sobel test.

Results of the study revealed significant correlations among collectivist orientation, perception of practice environment and organisational commitment and negative associations with intention to leave. According to the study results, organisational commitment was the strongest predictor of intention to leave the

current job and it mediated the relationship between intention to leave and perception of practice environment. The study further concluded that Asian nurses are highly collectivist oriented having high levels of satisfaction with their organisational commitment and practice environment. The study further suggested that administrators should understand the organisational commitment and characteristics of members of collectivist cultures to lower the rate of turnover among them.

Guldal Guleryuz (2008) undertook a questionnaire survey to examine whether job satisfaction can mediate the relationship between organisational commitment and emotional intelligence. The linkages among job satisfaction, emotional intelligence and organisational commitment and the effect of job satisfaction as a mediator in the relationship between organisational commitment and emotional intelligence was analysed in this study. The data for the study was collected through a questionnaire consisting forty five items that measured emotional intelligence, organisational commitment and job satisfaction nurses working in hospitals of Ankara. Five hundred and fifty nurses working at the university hospital in Ankara, Turkey were selected as the sample of the study. ‘‘Emotional Intelligence Questionnaire’’ developed by Wong and Law (2002). ‘‘Job Satisfaction Questionnaire’’ developed using fourteen questions of Section 4 of ‘‘Job Diagnostic Survey’’ by Hackman and Oldham (1975) and ‘‘Organisational Commitment Questionnaire’’ by Mowday et al. (1979) were the scales used in questionnaire. The data collected were analysed with the statistical packages of SPSS and AMOS.

The findings of the study outlined that emotional intelligence is positively and significantly related to job satisfaction and organisational commitment where job satisfaction acts as a mediator between organisational commitment and emotional intelligence. The between job satisfaction and organisational commitment was found to be positively and significantly correlated. According to the study job satisfaction is related with Regulations of Emotion and Use of Emotion dimensions. It was not related with other two dimensions of emotional intelligence. Self Emotion

Appraisal was found to be a suppressor and Others' Emotion Appraisal was found not to be linked with organisational commitment or job satisfaction. It further concluded that self emotion appraisal and use of emotion have direct effects on organisational commitment and job satisfaction is a mediating variable between regulation of emotion and organisational commitment.

Sunil Maheshwari (2008) studied about commitment of state health officials and its implications for human resource practices in Gujarat. The study was undertaken using a self-administered questionnaire to measure commitment and its relationship with human resource (HR) variables. Employee's organisational commitment (OC) and professional commitment (PC) were measured using OC and PC scale distributed among fifty five medical officers from Gujarat.

The study concluded that the professional commitment of the doctors and the State health officials is higher than organisational commitment. The higher commitment to their profession drives doctors to execute their professional responsibilities even if their commitment to their departments is lower. The affective organisational commitment (3.61) of health officials in and normative commitment (3.54) indicate that district health officials share fairly strong emotional bond with their department. The study also indicated that doctors did not perceive greater fairness in the system of promotion and were of the view that the system still followed seniority based promotion. Medical officers were upset about low autonomy in the department with regard to reward and recognition, accounting procedure, prioritization and synchronization of health programmes and other administrative activities. The study provided some support for positive effects of progressive HR practices on OC, specifically on affective and normative OC and some initiatives were identified to foster a development climate among the health officials as providing opportunities for training, professional competency development, developing healthy relationship between superiors and subordinates, providing useful performance feedback, and recognising and rewarding performance.

Al-Hussami (2009) conducted a study to investigate multiple correlations of job satisfaction, perceived organisational support, transformational leadership behaviour and level of education with organisational commitment among nurses in South Florida's long term care facilities. The study was undertaken at four private nursing homes in the South-eastern USA which ran on a non profit basis. The population selected for study includes diverse representations of white non Hispanic, Hispanic and Black non Hispanic nurses. For the purpose of analysis organisational commitment was set as dependent variable and other four predictors as independent variables. Organisational commitment was measured by a 23 item index called Organisational Commitment Questionnaire (OCQ) developed by Meyer et al (1993) with an estimated Cronbach's alpha .85. Job Satisfaction was measured by a 20 item index called Minnesota Satisfaction Questionnaire (MSQ) short form, developed by Weiss et al (1967) with an estimated Cronbach's alpha .91. Survey of Perceived Organisational Support (SPOS) scale, transformational leadership behaviour developed by Bass and Avolio (1992) and The Multifactor Leadership Questionnaire (MLQ) were used to measure perceived organisational support and transformational leadership behaviour.

The study found a strong correlation between dependent variable (nurses' organisational commitment) and independent variables (job satisfaction, perceived organisational support, transformational leadership and level of education) as per the computation of Pearson product-moment correlation coefficients. According to multiple regression analysis, out of four independent variables, job satisfaction and perceived organisational support were most significantly related to nurses' organisational commitment. It further indicated that 91% of the variance in nurses' organisational commitment can be explained by the four superior independent variables.

Jai Prakash Sharma (2010) undertook a comparative study to understand the impact of organisational commitment on job satisfaction of employees working in private and public sectors. The two research questions raised in this study were: 1) there exist a difference in the degree of organisational commitment in public and

private sectors of India. 2) Organisational commitment enhances the job satisfaction level in both public and private sector organisations of India. The data for the study was collected through questionnaire survey method from a sample 250 managerial and non managerial staff of public and private organisations in India. Tools like z-test and simple regression technique were used for data analysis where z-test was used for measuring the difference between means of two organisations.

The results of the study revealed that the organisational commitment scores of public sector organisations are higher than of private sector organisations. Employees in public sector organisation have greater degree of organisational commitment in comparison to private sector organisations and the job satisfaction increases or decreases based on the degree of organisational commitment. However in terms of organisational commitment a significant difference is noticed between public sector and private sector organisations. Further the organisational commitment is emerged as the catalyst for enhancing job satisfaction level of employees.

Altindis (2011) investigated the motivation and organisational commitment of hospital employees along with the linkages between them. Hospital staffs working in state hospitals of Turkey were selected as the sample of the study. Organisational Commitment Questionnaire and Motivation Questionnaire were distributed to health staffs working in Turkey hospitals and the relationships were examined with the means of SEM. the relationships between the organisational commitment and motivation were examined. Affective commitment, continuance commitment, normative commitment, intrinsic motivation and extrinsic motivation were the major dimensions analysed in the study.

The study concluded that the affective and normative commitment of employees influenced to an extent the intrinsic motivation in the workplace. Normative and affective commitments were found to impact highly on intrinsic motivation compared to the less impact of continuance commitment where normative commitment was identified as the most effective factor. The effect of

emotional commitment on external motivation as well as the effect of continuance commitment on extrinsic motivation was found to be very less.

Carman-Tobin & Mary B (2011) explored the relationships between organisational conflict, trust, demographic variables and an intervening variable, empowerment, with organisational commitment. The study was a descriptive survey using self-administered questionnaires that distributed among a large sample of full-time Licensed Practical Nurses (LNPs) in U.S.A. Organisational commitment was set as dependent variable; empowerment as the intervening variable and organisational conflict and trust as independent variables. Organisational commitment was assessed using the Organisational Commitment Questionnaire and empowerment was measured by Spreitzer's (1995a) measure of empowerment. Organisational trust was measured using Moye's (2003) seven-item organisational trust system-level trust scale. The analysis of data was done using exploratory factor analysis, ordinary least square, ANOVA and path analysis.

The findings of the research revealed that empowerment is associated with nurses' organisational commitment and mediates effects of organisational conflict and trust on commitment to the organisation. It was concluded that empowerment and organisational climate, especially organisational conflict and trust, matter to full-time Licensed Practical Nurses. Results provided an idea about linkages to organisational commitment among lower educated and less skilled nurses.

Samina Nawab (2011) undertook a study to examine the impact of employee compensation on job satisfaction and organisational commitment in education sector and to explore the associations among these variables. The population of the study is faculty members of universities in Pakistan and 41% of them were selected as sample through purposive sampling method. The data was collected using a survey instrument developed combining some existing scales on three key variables. Descriptive statistics, Pearson correlation and multiple regression tools were used for data analysis.

The results of the study indicated that employee compensation and job satisfaction has a positive and significant relationship with each other and the

employees in Pakistani settings have greater job satisfaction if they are being compensated well. The findings reveal that employee compensation is stronger on organisational commitment compared with job satisfaction.

Ilka Beukes (2013) conducted a research work to investigate work engagement, meaning of work and organisational commitment levels of nurses working in South African hospitals. The main motive of the study was to investigate the linkages and correlations among work engagement, meaning of work and organisational commitment of nurses. It enquired about the potential options for optimising the work experience of nurses that may help in enhancing the commitment and engagement level. One hundred and ninety nine permanent and non permanent nurses from private hospitals were selected as a cluster sample for the study. Organisational Commitment Questionnaire (OCQ), The Utrecht Work Engagement Scale (UWES) and The Work-Life Questionnaire (WLQ) were used respectively to measure the organisational commitment, work engagement and meaning of work. SPSS and descriptive statistics were used to analyse the data. The relationships between variables were found using Pearson and Spearman correlation coefficients. Multiple regression analysis was used to explain the variance in the dependent variable.

The results of the study indicated that the meaning of work is generally understood as calling or job. It found that organisational commitment and meaning of work had a positive statistically significant correlation which means that when an individual's view of his work as a calling gets stronger he gets more committed to the organisation. Work engagement also has a statistically and practically significant positive correlation with meaning of job and the nurses will be more engaged when they understand their work as a calling. Further it found that work engagement and organisational commitment are positively correlated explaining that engaged nurses will be more committed to the organisations or committed nurses will be more engaged in their work. The other important conclusion of the study was that the calling predicts the organisational commitment.

Lee, K. H. (2013) examined temporary agency workers' dual affective commitment towards user firm and agency in the South Korean institutional settings. The study was undertaken in a quantitative approach collecting requisite data from 141 temporary agency workers through an internet forum and an online survey agency. Commitment to the user firm and commitment to the agency were set as dependent variables and a modified version of Allen and Meyer's (1990) organisational commitment questions was used to measure the organisational commitment. The data was analysed using MS Excel, SPSS and regression tools.

The results of the study indicated that the respondents' commitment to the user firm and agency are positively related to each other meaning that they are cooperative rather than competing. The findings showed that the most significant antecedent of temporary workers' commitment is their perceived organisational support (POS) from the user firm and the agency. Further the study revealed that the nonfinancial supports of an organisation would affect temporary agency workers' affective organisational commitment more significantly than financial supports.

In a correlation research design study, **Safaa Mohamed El-Demerdash, A. A. (2013)** explored the relationship between nurses' burnout and organisational commitment at Tanta University Hospitals, Egypt. The data for the study was collected from one hundred and twenty three staff nurses in emergency or intensive care units and general medical surgical department at Tanta University hospitals. Burnout questionnaire by Maslach (2003) and organisational commitment questionnaire by El-Shaer (2002) were the major tools used to measure the variables. Data was analysed using Statistical Package for Social Sciences (SPSS) Software Package Version 18.0.

The results of the study revealed that a good percent of staff nurses in emergency or intensive care units and general medical surgical departments experience high level of burnout and moderate level of organisational commitment. Negative correlation was found between organisational commitment and emotional exhaustion as well as accomplishment and total burnout. The study revealed a negative correlation between burnout and years of experience too. However

organisational commitment and depersonalization were found not to be correlated significantly.

Ali Abbaas Albdour, I. I. (2014) studied the relationship between employee engagement and organisational commitment in banking sector hypothesizing that there is a significant relationship between employee engagement and organisational commitment. Three hundred and thirty six frontline employees in the banking sector in Jordan were selected through the quota and convenience sampling method from a population of 2393 frontline employees. Organisational commitment was measured using organisational commitment scale of Allen and Meyer (1990) and the two dimensions of employee engagement (job engagement and organisational engagement) were measured using Saks' (2006) engagement scale.

The results of the study indicated that the employee engagement has significant positive relationship with affective commitment and normative commitment and negative relations with continuance commitment. The study revealed that job engagement is higher among frontline employees within the banking sector in Jordan than organisational engagement as it indicated that affective commitment is the highest one among frontline employees followed closely by the normative commitment.

In a study on factors affecting nurses' organisational commitment, **Mateja Lorber, B. S. S. (2014)** attempted to determine the level of commitment of nurses and to identify the factors contributing to nurses' commitment. Research was done through a non experimental quantitative research method and the data was collected through a closed type questionnaire consisting seventy eight questions. The questionnaire divided in three main parts were distributed among seven hundred and fifty nursing employees working in Slovenian hospitals including middle level and unit level nurse leaders and other nursing employees. The data was analysed using SPSS version 20.0, one way ANOVA, Pearson correlation analysis and multivariate regression analysis.

The results of the study indicated a strong positive correlation between nurses' commitment and independent variables, job satisfaction, interpersonal

relationship, organisational support, and leadership style. Among the variables organisational support showed strongest correlation with nurses' commitment followed by interpersonal relationship, leadership style and job satisfaction. Further the regression analysis revealed that 78% of the variance in nurses' commitment was expressed by the linear combination of job organisational support, job satisfaction and leadership style. The study also found that the leaders in nursing are statistically significantly more committed to an organisation than other nurses.

Tikare, M. (2015) investigated the organisational commitment of the nursing professionals with reference to their educational level. The study mainly attempted to find out the commitment level of Nursing Staff towards their hospital organisation, to describe the demographic factors like education related to the commitment level of nursing employees and to analyze the variations in commitment levels due to differences in educational level. The data for the study was collected from nursing staff working in thirty two hospitals of four different zones and eight cities in India including both trust and private hospitals having more than fifty bedded capacities. ACN scale developed by Allen and Meyer (1997) was used to measure the organisational commitment of nursing staff and descriptive techniques and One-way Analysis of Variance (ANOVA) were used for data analysis.

The results of the study indicated that the commitment level of nursing staff is not similar for all education groups. Respondents with the higher level of education showed a lower level of commitment meaning that higher level education creates confidence in nurses. However, the nursing staffs across the country showed the similar levels of affective commitment towards their organisations. Further the study suggested that HR Managers have to develop HR Policies in alignment to the demographic factors like education to increase the commitment level of nursing staffs.

Tikare, M. (2015) investigated the organisational commitment of the nursing professionals with reference to their marital status. The data for the study have been collected from eight cities, comprising of four zones of India using a

stratified sampling method in which three hundred and seventy six Nursing Staff from thirty two hospitals were responded. The well-known instrument - ACN scale developed by Allen and Meyer (1997) was used for this study.

The results of the study revealed that the group of married nursing staff has a higher mean for all the variables of commitment. It indicated that there are similarities between married and unmarried nursing staff at the level of affective commitment, continuance commitment, and total organisational commitment. Conversely, there is a significant difference in normative commitment level between married and unmarried nursing staff of India. The result of the study confirmed the findings of the earlier studies related the positive relationship between marital status and organisational commitment, and higher commitment level of married employees as well as unmarried employees. The findings of this study suggested that the HR managers should understand the issues of married and unmarried nursing staffs.

2.5 Conclusion

A thorough review of the literature related to the Emotional Intelligence, Organisational Commitment and Work Engagement reveals the importance and significance of these constructs in HRM practices and outcome. All three constructs are widely studied from different viewpoints in various business and non business settings in Indian and foreign backgrounds. It is viewed as essential parts in behavioural, psychological, organisational and occupational management practices. The literature outlines a number of antecedents, precedents and contributing factors for these constructs in various occupational fields.

Organisational commitment is the degree to which an employee identifies with the organisation and wants to continue actively participating in it. Further it is the willingness of an employee to remain with his organisation. Today organisational commitment is a topic of interest in human resource management and industrial psychology and various human resources practices are getting introduced to increase the organisational commitment of employees. It is viewed as a business

necessity and organisations are careful in preparing necessary arrangements in HRM policies and practices to include organisational commitment related programmes.

Organisational commitment is thoroughly discussed and studied in the literature along with its well known three components, affective, normative and continuance commitments. All the three commitments are studied in different settings, with different tools at different times and are considered as the most potential benefits for organisations. A plenty of research studies have been undertaken to understand the precedents, antecedents and the mutual relationships of commitments along with its relationships with other relevant human resource practices and outcomes. It provided a support for positive effects of organisational commitment on several progressive HR practices and outcomes.

The literature outlines the positive relationship of organisational commitment with job satisfaction, job performance, empowerment, work engagement, emotional intelligence, meaning of work, interpersonal relationship, organisational support, leadership style, perceived organisational support, transformational leadership, prosocial organisational behaviours and the like HRM practices and outcomes in different fields especially the health sector and nursing field. It is also negatively correlated with a variety of negative HRM outcomes like intention to leave and burnout. The literature provides scores of precedents, antecedents, contributors and predicting factors of organisational commitment.

Work engagement is the sum of vigor, dedication, and absorption expressed by employees. Vigor refers to the level of energy of an individual in his work, dedication refers to meaningfulness in his work and absorption means the degree of immersion in his work. It is an emotional and intellectual attachment one has towards his organisation and a positive antithesis of burnout. Today it is a hot topic of discussion in all business and non business spheres especially in HRM related aspects and the research studies postulate it as a crucial competitive advantage in all HRM practices and procedures. Plenty of research and analytical studies has been undertaken in relation to the work engagement and its effects and relationships with other business concepts in Indian and foreign settings. Many scholars attempted to

study the internal and external factors contributing to work engagement, antecedents and precedents of work engagement and effects it has on other HRM practices and outcomes.

The review of the literature reveals the linkages and correlations between work engagement and a range of organisational concepts like organisational performance, affective emotional commitment, customer satisfaction, productivity, profit, employees' retention, organisational success, performance feedback, autonomy, emotional intelligence etc. The existing literature considers work engagement as an important factor for meaningful business results and performance in many organisations especially in healthcare sector and nursing field.

Emotional intelligence along with other two HRM outcomes namely organisational commitment and work engagement has been critically studied in health sector and nursing field. Many scholars have undertook experimental and research studies to understand the levels of emotional intelligence, commitment and engagement of nurses, doctors and healthcare professionals in Indian and foreign settings while some others attempted to find out the interrelationships and linkages among these constructs and the effects it has on other HRM concepts. The results of the studies and the conclusions reveal the significance of emotional intelligence, organisational commitment and work engagement for healthcare and nursing field where emotional intelligence is considered as a best predictor of many positive HRM outcomes like organisational commitment and work engagement. Emotional intelligence is considered as the leading positive behavioural and psychological construct for the better results in healthcare sector. It helps in creating a positive motivating psychological climate at workplace and causes for moulding many well being factors and positive HRM outcomes. Many positive and negative indicators of wellbeing in nursing profession in directly or indirectly related with emotional intelligence.

Mental healthcare where mentally ill persons are treated and diagnosed is a part of general healthcare and plays an important role in overall healthcare system. Mental healthcare sector in Kerala is a leading healthcare system with modern

facilities and diagnosis tools where public and private institutions work parallel for better mental health of Keralites. It includes multiple departments and specialities with different forms of mental healthcare and employs thousands of employees in each part such as doctors, psychiatrists, counsellors, neurologists, nurses and assisting staffs. It is very obvious that any healthcare system like mental healthcare is in very need for better HRM practices and monitoring to provide better results. The assessment of emotional intelligence, organisational commitment and work engagement levels of employees in this sector and understanding the interrelationships among them will help this sector to perform better in terms of results and outcomes.

The detailed review of literature revealed that Emotional Intelligence, Work Engagement and Organisational Commitment have been studied in many business and non business background across various countries at different time and cultural settings. Many studies have been undertaken about the effect and impact of these constructs and the inter linkages among them in general healthcare system. Unfortunately no more studies and research works are available in relation to mental healthcare systems in India or foreign countries. Nobody has undertaken any study about the possibility of application of these constructs to mental healthcare sector of Kerala for better results. This gap was identified by researcher and an attempt in this regard was initiated from the part of researcher. To fill this gap in mental healthcare by assessing and analysing these constructs is the need of hour and this study will attempt to solve this disparity by exploring the inter linkages and interrelations of these constructs in mental healthcare sector of Kerala.

References

Akerjordet K, S. E. (2004). Emotional Intelligence in Mental Health Nurses Talking about Practice. *International Journal of Mental Health Nursing, 13* (3), 164-70.

Al Hussami, M. (2009). Predictors of nurses' commitment to health care organisations. *Australian Journal of Advanced Nursing*, 26 (4), 36-48..

Al-Aameri, A. S. (2000). Job satisfaction and organisational commitment for nurses. *Saudi Medical Journal*, 21 (6), 531-535.

Ali Abbaas Albdour, I. I. (2014). Employee Engagement and Organisational Commitment: Evidence from Jordan. *International Journal of Business*, 19 (2), 192-212.

Altindis, S. (2011). Job motivation and organisational commitment among the health professionals: A questionnaire survey. *African Journal of Business Management*, 5 (21), 8601-8609.

Ameneh Aghabozorgi, M. A. (2014). Impact of Emotional Intelligence on Organisational Commitment of Nurses in The Public Hospitals of Sanandaj. *Indian Journal of Fundamental and Applied Life Sciences*, 120-127.

Anand Nagrecha, S. S. (2014, January). Emotional Intelligence: Concept and Application in Indian Context. *Indian Journal of Applied Research, 4*(1), 296-297.

Antony, J. M. (2013). The Influence of Emotional Intelligence on Organisational Commitment and Organisational Citizenship Behaviour. *International Journal of Social Science & Interdisciplinary Research*, 110-115.

Auxiliadora Duran, N. E. (2004). Self-Reported Emotional Intelligence, Burnout and Engagement among Staff in Services for People with Intellectual Disabilities. *Psychological Reports, 95*, 386-390.

B. Karsh, B. C. ((2005)). Job and organisational determinants of nursing home employee commitment, job satisfaction and intent to turnover. *Ergonomics*, 48 (10), 1260-1281.

Bakker, A. B. (2011). An Evidence-Based Model of Work Engagement. *Current Directions in Psychological Science*, 20 (4), 265–269.

Baugh, S., R. R. (1994). Professional and organisational commitment among engineers: conflicting or complementing. *Engineering Management*, 41 (2), 108-114.

Bhatnagar, J. (2005). The power of psychological empowerment as an antecedent to organisational commitment in Indian managers. *Human Resource Development International*, 8 (4), 419-433.

Blau, P. (1964). Power and exchange in social life. NY: John Wiley & Sons.

Boyatzis, R. E. (1999). Presentation to the Linkage Conference on Emotional Intelligence, Chicago, IL,

Carman-Tobin, M. B. (2011). Organisational commitment among licensed practical nurses: exploring associations with empowerment, conflict and trust. University of Iowa.

Cristina Jenaro, N. F. (2010). Vigour and dedication in nursing professionals: towards a better understanding of work engagement. *Journal of Advanced Nursing*, 865-875.

Dumisani Mathumbu, N. D. (2013). Perceived Organisational Support, Work Engagement and Organisational Citizenship Behaviour of Nurses at Victoria Hospital. *Journal of Psychology, 4* (2), 87-93.

Elena Fiabane, I. G. (2013). Work engagement and occupational stress in nurses and other healthcare workers: the role of organisational and personal factors. *Journal of Clinical Nursing, 22*, 2614-2624.

Evangelia Demerouti, A. B. (2000). A model of burnout and life satisfaction among nurses. J*ournal of Advanced Nursing, 32* (2), 454-464.

Fatemeh Dehghan, P. S. (2013). Investigating the Relationship between Emotional Intelligence and Organisational Commitment. *Unique Journal of Business Management Research, 1* (5), 081-094.

Gregory B. Stevens, P. O. (1983). Expectation and burnout in the developmental disabilities field. *American Journal of Community Psychology*, 11, 615–627.

Guldal Guleryuz a, S. G. (2008). The mediating effect of job satisfaction between emotional intelligence and organisational commitment of nurses: A questionnaire survey. *International Journal of Nursing Studies*, 45, 1625–1635.

Harter, J. K., S. F. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87*, 268-279.

Herholdt, K. (2015). *Determinants of Work Engagement and Organisational Citizenship Behaviour Amongst Nurses.* Stellenbosch, SA: Stellenbosch University.

Humpel & Caputi (2001). Exploring the relationship between work stress, years of experience and emotional competency using a sample of Australian mental health nurses. *Journal of Psychiatric Mental Health Nurses*, 8(5), 399-403.

Ilka Beukes, E. B. (2013). Organisational commitment, work engagement and meaning of work of nursing staff in hospitals. *Original Research*, 1-10.

Ilka Beukes, E. B. (2013). Organisational commitment, work engagement and meaning of work of nursing staff in hospitals. SA Journal of Industrial Psychology, 39 (2), 1-24.

Jafar Shabani, S. A. (2010). Exploring the Relationship of Emotional Intelligence with Mental Health among Early Adolescents. *International Journal of Psychological Studies, 2* (2), 209-216.

Jahanvash Karim, R. W. (2010). Emotional Labour, Emotional Intelligence, and Psychological Distress. *Journal of the Indian Academy of Applied Psychology*, 36 (2), 187-196.

Jai Prakash Sharma, N. B. (2010). Organisational Commitment and its Impact on Job Satisfaction of Employees: A Comparative Study in Public and Private Sector in India. *International Bulletin of Business Administration*, (9), 7-19.

James K. Harter, F. L. (2003). *Employee Engagement, Satisfaction, and Business-Unit-Level Outcomes: A Meta-Analysis.* Omaha, NE: The Gallup Organisation.

Jazreel Hui Min Thian, P. K. (2013). Stress, Positive Affectivity, and Work Engagement among Nurses: An Integrative Literature Review. *Singapore Nursing Journal*, 40 (1), 24-33.

K. Ravichandran, R. A. (2011). The Impact of Emotional Intelligence on Employee Work. *International Journal of Business and Management*, 157-169.

KAHN, W. A. (1990). Psychological Conditions of Personal Engagement and Disengagement at Work. *Academy of Management Journal*, 33 (4), 692-724.

Karthik Namasivayama, X. Z. (2007). An investigation of the moderating effects of organisational commitment on the relationships between work-family conflict and job satisfaction among hospitality employees in India. *Tourism Management*, 28, 1212–1223.

Lee, H. J. (2001). Willingness and capacity: the determinants of prosocial organisational behaviour among nurses in the UK. *International Journal of Human Resource Management*, 12 (6), 1029–1048.

Lee, K. H. (2013). Temporary Agency Workers' Perceptions on Organisational Supports and Affective Organisational Commitment. Sweden: University of Gothenburg.

Liou, S. R. (2007). The Relationships between Collectivist Orientation, Perception of Practice Environment, Organisational Commitment, and Intention to Leave Current Job among Asian Nurses Working in the U.S. Austin: University of Texas.

Lyman W. Porter, R. M. (1973). Others Organisational Commitment, Job Satisfactions and Turnover among Psychiatric Technicians. Irvine: University of California.

Lyman W. Porter, R. M. (1974). Organisational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59 (5), 603-609.

Mai Ngoc Khuong, N. H. (2014). The Effects of Leadership Styles and Sociability Trait Emotional Intelligence on Employee Engagement-A study in Binh Duong City, Vietnam. *International Journal of Current Research and Academic Review, 2* (1), 121-136.

Marcheta McGhee, J. S. (1995). Organisational Commitment and Job Satisfaction among State Agency Rehabilitation Counselors: Connecticut. U.S.: Educational Resource Information Center.

Mateja Lorber, B. S.-S. (2014). Factors affecting nurses' organisational commitment. *Obzornik zdravstvene nege*, 48 (4), 294301.

McClelland, D.C. (1975). *Power: The inner experience*. New York: Irvington Press.

McClelland, David C. (1998). Identifying competencies with behavioural-event interviews. *Psychological Science*, 9(5), 331-340.

McNeese-Smith, D. K. (2001). A Nursing Shortage: Building Organisational Commitment Among Nurses. *Journal of Healthcare Management*, 46 (3), 173-187.

McQueen, A.C. (2004). Emotional Intelligence in Nursing Work. *Journal of Advanced Nursing*, 101-108.

Michael P. Leiter, C. M. (2009). Nurse turnover: the mediating role of burnout. *Journal of Nursing Management, 17,* 331-339.

Michael P. Leiter, P. H. (1998). The Correspondence of Patient Satisfaction and Nurse Burnout. *Social Science & Medicine*, 47 (10), 1611-1617.

Michael T. Brannick, M. G. (2013). Emotional Intelligence and Medical School Performance: A Prospective Multivariate Study. *The Journal of the International Association of Medical Science Educators*, 23 (4), 628-636.

Natalie J. Allen, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organisation. *Journal of Occupational Psychology*, 63, 1-18.

Natalio Extremera, P. F.-B. (2006). Emotional Intelligence as Predictor of Mental, Social, and Physical Health in University Students. *The Spanish Journal of Psychology, 9* (1), 45-51.

Neerpal Rathi, R. R. (2009). Assessing the Relationship between Emotional Intelligence, *Journal of the Indian Academy of Applied Psychology*, 93-102.

Nilay Gemlik, F. A. (2010). The Relationship between Burnout and Organisational Commitment among Health Sector Staff in Turkey. *Journal of Global Strategic Management*, 4 (2), 137-149.

O'Malley M (2000), Creating commitment, John Wiley & Sons. Chichester

Pardee, D. J. (2009). *Emotional Intelligence and Job Satisfaction among Mental Health Professionals.* Ann Arbor: ProQuest Dissertations Publishing.

Pascale M. Le Blanc, A. B. (2001). Emotional Job Demands and Burnout among Oncology Care Providers. *Anxiety, Stress, & Coping*, 14 (3), 243-263.

Piia Seppala, S. M. (2009). The Construct Validity of the Utrecht Work Engagement Scale: Multisample and Longitudinal Evidence. *Journal of Happiness Studies, 10*, 459-481.

R. Krishnaveni, R. D. (2011, September). Diagnosing Employees' Emotional Intelligence in The IT/ITES Sector of South India. *Great Lakes Herald, 5*(2), 1-23.

Richa Chaudhary, S. R. (2011). Relation between human resource development climate and employee engagement: Results from India. *Europe's Journal of Psychology*, 7 (4), 664-685.

Rinju George, B. S. (2012). Role of Emotional Intelligence on Stress and Coping of Gifted Adolescents. *International Journal of Physical and Social Sciences*, *2* (9), 524-538.

Rozman bin Hj. Mohd Yusof, N. A. (2006). *The Relationship Between Emotional intelligence and organisational commitment among Employees at Selected Zakat collection centres.* eprints.ptar.uitm.edu.my.

Safaa Mohamed El-Demerdash, A. A. (2013). The Relationship between Burnout and Organisational Commitment among Nurses at Tanta University Hospitals. IOSR *Journal of Nursing and Health Science*, 2 (6), 20-28.

Salovey, P., & Mayer, J.D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality, 9*, 185-211.

Samina Nawab, K. K. (2011). Influence of Employee Compensation on Organisational Commitment and Job Satisfaction: A Case Study of Educational Sector of Pakistan. *International Journal of Business and Social Science*, 2 (8).

Seligman, Martin E.P. (1991). Learned Optimism: How to Change Your Mind and Your Life. New York, NY: Pocket Books.

Shinn M, R. M. (1984). Coping with job stress and burnout in the human services. *Journal of Personality and Social Psychology*, 46 (4), 864-876.

Siw Tone Innstrand, E. M. (2012). A Longitudinal Study of the Relationship between Work Engagement and Symptoms of Anxiety and Depression. *Stress and Health , 28*, 1-10.

Somers, M. J. (1995). Organisational Commitment, Turnover and Absenteeism: An Examination of Direct and Interaction Effects. *Journal of Organisational Behaviour*, 16 (1), 49-58.

Steers, R.M. (1977). Antecedents and Outcomes of Organisational Commitment. *Administrative Science Quarterly*, 22, 46-56.

Sunil Maheshwari, R. B. (2008). Commitment among state health officials & its implications for health sector reform: Lessons from Gujarat. *Indian Journal of Medical Research*, 148-153.

Syed Mohammad Azeem, N. A. (2014). Role of Stress and Burnout among Nurses in the Private Hospitals. *International Journal of Academic Research in Business and Social Sciences*, *4* (3), 420-428.

Thomas S. Bateman, S. S. (1984). A Longitudinal Analysis of the Antecedents of Organisational Commitment. *The Academy of Management Journal*, 27 (1), 95-112.

Thor, S. (2012). *Organisational Excellence: A Study of the Relationship Between Emotional Intelligence and Work Engagement in Process Improvement Experts.* Ann Arbor, MI: ProQuest LLC.

Tikare, M. (2015). A Study of Organisational Commitment with Reference to Marital Status of Indian Nursing Staff. *American Journal of Trade and Policy*, 2 (1), 19-28.

Tikare, M. (2015). An Evaluation of Organisational Commitment of Indian Nursing Staff of Trust/Private Hospitals with Reference to Education. *Abhinav International Monthly Refereed Journal of Research in Management & Technology*, 4 (6), 1-13.

TT, S. (2017). Exploring an Emotional Intelligence Model with Psychiatric Mental Health Nurses. *Journal of American Psychiatric Nurses Association*, 1.

Upasna A Agarwal, V. G. (2015). *Examination of a Moderated-Mediation Model Linking Perceived Organisational Support, Affective Commitment, Organisational Citizenship Behaviour and Work Engagement: A Study of Nurses in the Indian Context.* Ahmedabad: Indian Institute of Management, Ahmedabad.

Upasna A Agarwal. (2014). Linking justice, trust and innovative work behaviour to work engagement. *Personnel Review*, 43 (1), 41 – 73.

Van Dusseldorp LR, v. M. (2011). Emotional Intelligence of Mental Health Nurses. *Journal of Clinical Nursing*, *20* (3-4), 555-62.

Vegsund, H. (2014). *Work engagement among nurses.* Trondheim: Faculty of Social Science and Technology, Norwegian University of Science and Technology.

Vidhya Ravindranadan, R. S. (2008). Emotional Intelligence and Quality of Life of Parents of Children. *Journal of the Indian Academy of Applied Psychology*, 34-39.

Wagner, R., H, J. K. (2006). The great elements of managing. *The Gallup Organisation*, Washington, D.C.

Williams, D. (1994); Leadership for the 21st Century: Life insurance leadership study. Boston: Hay Group

Wilmar B. Schaufeli, A. B. (2006). The Measurement of Work Engagement with a Short Questionnaire A Cross-National Study. *Educational and Psychological Measurement*, 66 (4), 701-716.

Wilson SC, C. J. (2008). Emotional Competence and Nursing Education: a New Zealand Study. *Nursing Praxis in New Zealand, 24* (1), 36-47.

Yseult M. Freeney, J. T. (2009). Exploration of the facilitators of and barriers to work engagement in nursing. *International Journal of Nursing Studies*, *46*, 1557-1565.

Yun Zhu, C. L. (2015). The impact of emotional intelligence on work engagement of registered nurses: the mediating role of organisational justice. *Journal of Clinical Nursing, 24*, 2115-2124.

Yvonne Brunetto, M. X. W. (2013). The impact of workplace relationships on engagement, well-being, commitment and turnover for nurses in Australia and the USA. *Journal of Advanced Nursing*, 2786-2799.

CHAPTER 3

THEORETICAL FRAMEWORK

Contents ..... Page No.

3.1 Emotional Intelligence

Emotional Intelligence is a type of intelligence such as traditional intelligence, spatial intelligence and spiritual intelligence. Traditionally Intelligence Quotient (IQ) or rational intelligence only was thought as prevalent types of intelligence and other intelligences were neglected and ignored intentionally or unintentionally. The introduction of multiple intelligence theory and writings of emotional intelligence scholars on importance of emotional intelligence and Emotional Quotient (EQ) made this concept a burning topic and a buzzword. Daniel Goleman's 1995 book on emotional intelligence 'Emotional Intelligence why it can matter more than IQ?' made corporate world which thrive hard to find new ways of making competitive advantage realise the importance of emotional intelligence for corporate world especially in developing people or human resource skills. Nowadays emotional intelligence is considered as a vibrant construct which include various skills and abilities such like the ability to identify, process, and manage emotions, in both self and others. Emotional intelligences and its branches are studied and researched in academic and corporate levels along with its meaningful applications to different organisational settings.

Emotional intelligence is considered as a psychological construct having wide linkage and relationships with a variety of subjects like business management and human resource management. It is highly studied as a subject in industrial psychology mainly concentrated on human resources and human resource skills. There is a continuous increasing trend toward conceptualization of EI, leading to significant advances in the measurement and refinement of the EI construct. Till the date a considerable amount of theoretical and empirical research has been done on the conceptualization of EI as well as its measures. Talented scholars and academicians from different walks of life have worked hard to conceptualise the EI and develop different models and measures. A plethora of models and assessment tools of EI are available today which are developed by leading EI scholars based on different theoretical aspects and approaches. Different models and measuring tools are modified for different organisational settings and situations.

There exist different schools of thoughts and multiple theories in relation to emotional intelligence. Many scholars like Daniel Goleman, Peter Salovey, John Mayer, Bar On and Caruso have developed different theories and models of emotional intelligence. All these theories can be classified into two three broad classifications namely ability theory of EI, trait theory of EI and mixed theory of EI where mixed theory includes both ability and trait at once. All these scholars agree with that emotional intelligence is the ability to manage, regulate, monitor and control emotions in self and others.

Emotional intelligence, a psychological construct widely used in human resource management practices can be defined as the ability to understand the emotions in self and others that helps in relating with people, adapting to the immediate surroundings and dealing successfully with environmental demands. The role of emotional intelligence in forming successful human relationships especially in nursing profession and healthcare sector has been studied academically and commercially that provided positive results for both academic and business spheres. It is related positively with a wide range of human resource practices, outcomes and procedures and the existing literature reveals a plethora of precedents and antecedents of emotional intelligence in various organisational settings. Scores of studies has proved its positive relationships with organisational commitment, organisational citizenship behaviour, occupational self-efficacy, mental health scales and sub-scales scores, work engagement behaviour and the like constructs. It is concluded that the low emotional intelligence will result in high stress and high emotional intelligence will result in low stress and it act as a predictive instrument to determine a variety of human resource outcomes such as organisational commitment and work engagement.

3.1.1 Emotion and Cognition

What the term ‘emotion’ refers to? How emotion differs from a feeling or mood? What relationships it has with cognition? These are some of the most complicated questions psychologists ever asked for thousands of years and got debated on several occasions. These terms are very complex and difficult to explain

and understand completely. Till the date, the emotion is thought as an experiencing state which includes a mixture of thoughts, physiological changes, psychological expressions or behaviours. Emotion is a complex state of feeling and experience in an individual that results in psychological and physical changes influencing both behaviour and thought. It is associated with a range of psychological phenomena including mood, temperament, motivation and personality.

Emotions happen mainly as a result of interactions an individual has with his environment. Human beings experience different blends of emotions in a single minute and are equipped with a power of stimulating different types of feeling at different levels. Emotion can be classified to positive emotions, negative emotions, specific emotion, general emotion, primary emotions and secondary emotions on different basis. It is generally linked to a variety of physical, psychological and environmental factors such like objects, life experiences, events, self-appraisal emotions and social emotions. The primary emotions such as care, joy, surprise, love, anger and fear are innate and happen frequently from the stage of birth. Secondary emotions are mainly learnt through life experiences and imitating others behavioural aspects. It includes emotions like shame, neglect, sympathy, pride, rage and horror.

The biological function of emotion is highly discussed in academic sphere across various branches of study like biology, physiology, psychology and sociology. The emotions are basically generated from brain based on the activity of nerves or neurons. The area of the brain that is highly involved in regulation and recognition of emotion is known as limbic system (Figure 3.1). The limbic system is consisted of amygdala, hippocampus, septum, fornix, anterior thalamic nuclei and limbic cortex. The structure called amygdala in limbic system plays the key role in regulation of emotion. The studies suggest that the sensory information availed from various events moves through two important pathways in the brain namely, amygdala and brain cortex.

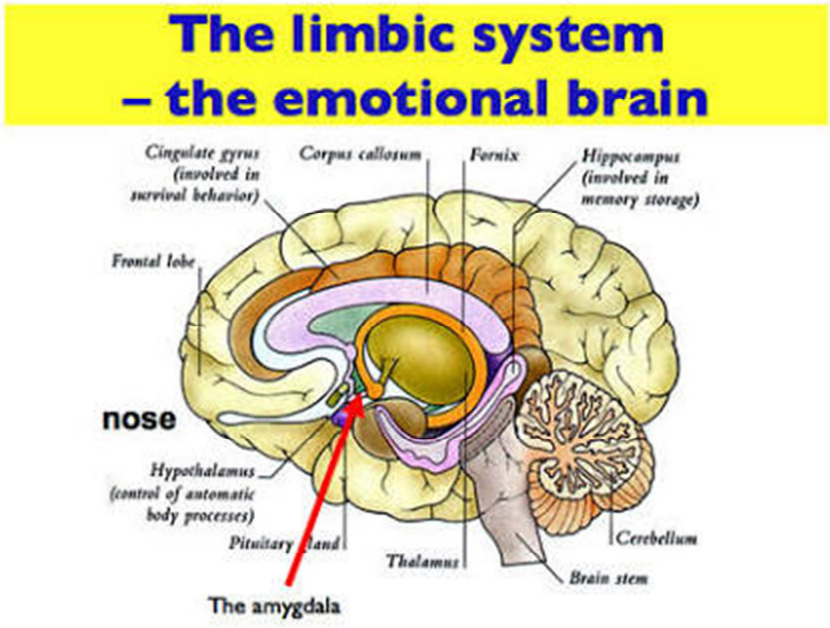


Figure 3.1: Limbic System - The Emotional Brain

Amygdala is a part of the brain located in the medial temporal lobe. The information goes very firstly to thalamus which is called as the relay centre of brain and then moves simultaneously to the amygdala and the cortex of the brain. The amygdala quickly processes the sensory information and transmits the sensory signals to the hypothalamus and the hormones to activate the Autonomic Nervous System (ANS) are released by hypothalamus. On the other hand the cortex of brain processes sensory information very slowly at this stage to speed up the appraisal and evaluation of the event.

The theory of the cognition dates back to the time of ancient Greek philosophers who studied about the mind and its functions. Cognition is the mental process involved in acquiring knowledge and comprehension through thought, experience and the senses. It encompasses many processes like knowledge, memory, attention, judgment, evaluation, computation, comprehension, decision making and problem solving. Cognition may be conscious or unconscious, abstract or concrete, conceptual or intuitive. However the cognition is considered as the high level function of the brain encompassed with imagination, language, planning and perception.

In the past cognition was on the top of list with high supremacy in all aspects. Cognitive or traditional intelligence known as intelligence quotient (IQ) was considered as the criterion for intelligence and intellectual works. Intelligence was measured only with the yardsticks of cognitive and rational skills. Arithmetic power, rationality, cognition, mathematical abilities and reasoning were leading marks of traditional intelligence or intelligence quotient. IQ was considered as an absolute function of brain where calculations and abstract reasoning is standing on the top of the list. Many scholars and authors have widely studied the multiple aspects of traditional intelligence or IQ and produced a plenty of conceptual models and theoretical frame works. Different measures and tools were developed for measuring of IQ of human beings.

IQ was considered as the indicator of success, performance and leadership skills. It was believed that those with good scores in IQ can only perform successfully at workplace. They will make good results and will lead to the better outcomes both qualitatively and quantitatively. IQ was the only yardstick to assess the intelligence of human beings in different settings ranging from organisations, institutions and families. Employees were recruited and selected to the professional roles in the organisations based on the IQ only. Those employees with high IQ possessed the prestigious posts and top ranks in the business organisations and availed more promotional potentialities than other employees with low IQ. The respect and recognition towards employees was expressed at different levels based on the degree of IQ that employees possessed.

This notion was utterly changed with the identification of importance of emotions in all aspects of life related with business and non business activities. The early works on emotional intelligence by Salovey and Mayer and historical advancements by Daniel Goleman in conceptualisation process made people more familiar with the concept of emotional quotient (EQ). The corporate world realised the importance of emotional intelligence in human resource management practices especially in developing human resource skills. Nowadays emotional intelligence is considered as a vibrant psychological wellbeing construct that includes various skills

and abilities to identify, process, and manage emotions, in both self and others. Currently emotional intelligences and its branches are studied and researched in academic and corporate spheres along with its meaningful applications to different organisational settings. Frijda (1993) has identified some essential components of emotion. According to his view the feelings must have a non-cognitive or emotional element that result from the cognitive appraisal of an event. The emotion can be categorised as pleasant and unpleasant and the emotion should accompany physiological changes. Mood is generally differentiated from emotions on the basis of intensity, duration and diffuseness. According to him an emotion is not a 'thing' but is best considered a process that is made up of basic processes such as feelings of pleasure or displeasure, facial-expression components, particular appraisals, and particular action plans and activation states (Frijda, 1993).

3.1.2 Theories of Emotion

Researchers, psychologists and philosophers have postulated different theories of emotion to explain how emotions are aroused and developed and what causes for a certain emotion in human beings. The major theories of emotion are classified into three categories namely neurological, cognitive and physiological. The neurological theories are based on the proposal that all activities within the brain lead to emotional responses. Cognitive theories propose that mental activity and other thoughts play an essential role in forming emotions and physiological theories argue that body responses are responsible for emotions.

The James-Lange Theory of Emotion

The James-Lange theory is a well known physiological theory of emotion proposed by psychologist William James and physiologist Carl Lange. William James is an American psychologist and philosopher who got interested in studying the biology of emotion. He believed that emotional experience is the exact output of bodily feedbacks to the brain that accompany emotions. As the emotions are accompanied by different responses he concluded that emotions are very different from all other states of mind. He postulated that bodily responses will follow the stimuli and the feeling of this change is identified as an emotion. The James-Lange

theory of emotion proposes that emotions are the result of physiological reactions to events and it depends upon the type of physical reactions. According to this theory an external stimulus leads to a physiological reaction. The emotional reaction is mainly depended upon how one interprets his physical reactions.

The Cannon-Bard Theory of Emotion

Cannon-Bard theory is a well known physiological theory of emotion developed by Walter Cannon and Philip Bard. Bard and Cannon hypothesised that cortical structure is involved in the experience of emotion and disagreed with the James-Lange theory of emotion on several grounds especially in the stated absence of brain centres connected to emotion. They hypothesised that the brain is responsible to give answer for understanding emotion as the motional processes are completely undertaken in the brain. The hypothalamus, the central part of brain, activates the body with regard to bodily responses and experience of emotions. Further they suggested that the physiological arousal is identical that not account for differences in emotion regardless of the emotional state that get experienced.

The theory was firstly developed by Cannon in 1920s and was later modified by physiologist Philip Bard in 1930s. Cannon-Bard theory proposes that people can experience physiological reactions related with emotions without feeling those emotions. The theory argues that emotional responses are products of physical states and it happens very quickly. This theory suggests that human beings can feel emotions and experience physiological reactions such as trembling, sweating and muscle tension and the emotions occurs when the thalamus sends a message to the brain in response to a stimulus, resulting in a physiological reaction. According to this theory the psychological and physical experience of emotion happens at once without mutual causations.

Schachter-Singer Theory

Schachter-Singer theory is a cognitive theory of emotion which is also known as the two-factor theory of emotion. Schachter and Singer are social psychologists who got interested in the study of emotions. They advocated that

arousal is an important factor in emotional experience and it is not as suggested by James. This theory was most influential in the emotion literature as it suggested that the psychology of emotion is mostly concentrated on cognition's role in emotion. They proposed that the cognitions are responsible for the gap between non-specific physiological feedback and specific felt experiences.

The theory proposes that the first thing to happen in emotion process is physiological arousal followed by the identification of the reason for the arousal. The identification stage label and experience the arousal as an emotion. Firstly a stimulus leads to a physiological response and later it is cognitively interpreted and labelled resulting in a meaningful emotion. The theory gives reasoning and important role in emotional experience. The assumptions of Schachter and Singer's theory are mainly based on the principles from both the James-Lange theory and the Cannon-Bard theory of emotion. Schachter-Singer theory like that of James-Lange theory, proposes that people can infer emotions based on physiological responses and suggest that that similar physiological responses can produce varying emotions as proposed by Cannon-Bard theory.

Appraisal theory of emotion

The theories developed by Magda Arnold and Richard Lazarus are cognitive appraisal theories of emotion. According to this theory an emotional response is aroused in accordance with the interpretation of situation. Emotions get extracted from different appraisals like evaluations, explanations and interpretations of events. Psychologist Magda Arnold was the first to postulate an appraisal theory of emotion who proposed early advancements in appraisal theory. In 1991 psychologist Richard Lazarus modified appraisal theory by proposing cognitive meditational theory and distinguishing between primary and secondary appraisals.

The appraisal theories of emotion postulate that thinking process must happen firstly before experiencing any kind of emotion. This theory narrates a sequence of events in emotion process which is started with a stimulus and followed by a thought. This thought then leads to the simultaneous experience of a physiological response and then to the emotion.

Facial-Feedback Theory of Emotion

The facial-feedback theory of emotions is based upon the facial expressions that happen during the experience of an emotion. It suggests that facial expressions are highly correlated with experience of emotions and gives importance for nonverbal parts of emotional expression. According to this theory the emotions are directly linked to changes in facial expression and muscles. Facial expressions are thought to be capable of influencing emotions in human beings and it suppression will definitely lead to the decrease in the level of intensity in emotional experience. The emotions are expressed through facial muscles as well as tone of voice, body language and behaviour.

3.1.3 Nature and definition of EI

The publication of the highly debated book Emotional Intelligence by Daniel Goleman has led the wide expansion of EI literature. Several schools of thought have come forth with multi faceted definitions and theoretical explanation of EI. A plenty of models, measures and scales have been developed by prominent scholars in the field of psychology, sociology, management etc. in the recent past. All the scholars have tried their best to answer the leading question what is emotional intelligence and what it means to the individual, society and institutions. The existing literature provides a plenty of definitions of what EI is and what the concept actually means? Many of them have succeeded to a great extent in accurately describing and measuring the multiples notions of EI. Some of these definitions of the concept of emotional intelligence lack sufficient research evidence to properly substantiate their views (Palmer and Jansen, 2004).

Even though some discrepancies and differences exists in the multiple definitions and outlooks provided by different scholars and authors, a general agreement is developed on that EI is a different and distinct concept and construct from that of traditional intelligence. The existing measures, scales and theoretical models with scores of components in EI field are more enough to prove validity of this statement.

Almost all the schools of thought have tried to conceptualise the EI from one of the three perspectives namely; ability model, trait model and mixed model. The proponents of ability model propound that the EI is a pure form of mental ability and exact intelligence without any consideration for traits, personality characters and behaviours. The advocates of trait model defend the pure mental ability argument and states that the EI is based on traits and personality characteristics of individuals. The supporters of mixed model take both ability and trait models in to considerations and proposes a new form of mixed model with equal importance for mental ability and personality traits.

Generally emotional intelligence is the "ability to recognise and regulate emotions in ourselves and others" (Goleman, 2001). Goleman (1997 in Dulewicz and Higgs, 2000:342) gives meaningful definition of EI and states that: "Emotional Intelligence is about knowing what you are feeling and being able to handle those feelings without having them swamp you; motivating yourself to get jobs done, being creative and perform at your peak; and sensing what others are feeling, and handling relationships effectively".

A very concise explanation is provided by Martinez. He defines emotional intelligence as "an array of non-cognitive skills, capabilities and competencies that influence a person's ability to cope with environmental demands and pressures" (Martinez, 1997:72). This means that unlike other traditional intelligences EI is not merely cognitive one but includes abilities to cope with environmental demands and pressures.

Peter Salovey and John Mayer have originally used the term 'emotional intelligence' in a published work. They defined EI initially to be "a form of intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey & Mayer, 1990). Later this definition was modified and revised to produce a more meaningful and widely accepted definition for EI. In the new attempt they introduced emotional intelligence as "ability to perceive emotions, integrate emotions to facilitate thought, understand emotion, and to

regulate emotion for promoting personal growth" (Mayer & Salovey, 1997). According to Mayer, Salovey and Caruso (2000:273) emotional intelligence refers to "the ability to appraise, perceive and express emotions accurately and adaptively; the ability to understand emotions and emotional knowledge; the ability to access and generate feelings where they facilitate cognitive activities and adaptive action; and the ability to regulate emotions in one self and others". It means that the "emotionally intelligent" person is one who is able to process emotion-laden information and then to use this information in cognitive tasks and other required behaviours (Palmer and Jansen, 2004).

Reuven Bar-On has originated the widely celebrated term emotional quotient. He has defined EI with a different outlook from others. According to him EI is "to be concerned with understanding oneself and others, relating to people, and adapting to and coping with the immediate surroundings to be more successful in dealing with environmental demands" (Bar-On, 1997). It is also believed that emotional intelligence allows the person other ways of being and behaving as compared to those emphasized by traditional ideas of intelligence. It is thus possible for the person to develop these alternative ways of being in order to become more effective and efficient in both day-to-day living and in the workplace.

3.1.4 Importance of EI

Hundreds of studies on emotional intelligence and its relations with other organisational constructs have proved the very importance of emotional intelligence in organisational and non organisational settings. Emotions play a great role in the life of human beings. Every moment in the life of human beings is surrounded by blend of emotions. There are a lot of positive and negative emotions. Emotions create both creative and destructive results in the life in relation to its usage. Negative emotions, such as fear; anxiety; anger and hostility, use up much of the individual's energy, and lower morale, which in turn leads to absenteeism and apathy (Bagshaw, 2000).

Emotionally intelligent individuals create a less stressful environment for themselves by conducting their personal and social lives in ways that produce fewer

frustrating or distressing events (Epstein, 1998). They have rich social networks and are better able to utilize these networks to provide them with an emotional buffer against negative life events (Salovey, Bedell, Detweiler, & Mayer, 2000). They are more aware of their own emotions and are better able to manage their emotions effectively. Therefore, they experience lower levels of distress (Salovey, Bedell, Detweiler, & Mayer, 1999). They are better able to repair negative moods following a stressful event, as well as elicit and maintain positive moods when appropriate (Salovey, Woolery, & Mayer, 2001). They are less likely to experience negative emotions, and concomitantly, more likely to experience positive emotions (Mikolajczak, Nelis, Hansenne, & Quoidbach, 2008). They tend to interpret stressful situations in more benign and less stressful way, viewing them more as challenge rather than threats (Epstein, 1998). They are more adept at directing their thoughts away from negative emotions and are less likely to engage in dysfunctional worry and excessive rumination (Salovey et al., 2000) and they engage in more active coping responses to stressful situations (Zeidner & Saklofske, 1996).

Research by Cooper (1997) shows that emotions that are properly managed can and do have successful outcomes. Carefully managed emotions can drive trust, loyalty and commitment as well as increase productivity, innovation and accomplishment in the individual, team and organisational sphere (Cooper, 1997). According to Klausner (1997) an individual's emotional intelligence can be seen to dictate interpersonal relationships. Several authors (Cooper and Sawaf, 1997; Salovey and Sluyter, 1997; Goleman, 1998) suggest that emotional intelligence is essential for effective leadership. Studies conducted by Goleman (1998) have shown that emotional intelligence is far more important at all levels in the workplace than technical skills and IQ. Studies show that "emotional intelligence facilitates individual adaptation and change" (Quy, 1999:325).

Other research by Schutte, Malouff, Hall, Haggerty, Cooper, Golden and Dornheim (1998) shows that emotional intelligence is associated with affective outcomes such as greater optimism, less depression and less impulsivity. Emotional intelligence has been found to be positively linked to task-mastery and life

satisfaction and negatively linked to symptoms of depression (Martinez-Pons, 1997). Kelley and Caplan's (1993) study at Bell Laboratories provides support for the ability of emotional intelligence to differentiate between high and average performers in the workplace (Dulewicz and Higgs, 2000). Downing (1997) points out that there has been a growth in interest in emotions and that this is due to the increasing volatility and change that happens in the organisational setting, and that these changes are frequently associated with emotions. It is for this reason that it is becoming increasingly important to explore emotions and emotional intelligence in the workplace.

Cooper (1997:31) quotes the former leader of an executive team at the Ford Motor Company, Nick Zenuik, as saying "Emotional intelligence is the hidden competitive advantage. If you take care of the soft stuff the hard stuff takes care of itself". This sentiment has been shared in studies conducted by authors such as Goleman (1996; 1997), Martinez (1997) and Harrison (1997). Within organisational settings, it is claimed that, EI is an important predictor of transformational and effective leadership (e.g., Barbuto & Burbach, 2006; Barling, Slater, & Kellowag, 2000; Brown & Moshavi, 2005; Downey, Papageorgiou, & Stough, 2006; Gardner & Stough, 2002; Goleman, Boyatzis, & McKee, 2002; Kerr, Garvin, Heaton, & Boyle, 2006; Leban & Zulauf, 2004), organisational commitment and job satisfaction (Carmeli, 2003; Law, Wong, Huang, & Li, 2008), conflict, frustration, stress and withdrawal behaviour (Bagshaw, 2000; Carmeli, 2003; Chapman & Clarke, 2003; Slaski1 & Cartwright, 2002; Suliman, 2007), and Performance (Brooks & Nafuko, 2006; Carmeli, 2003; Diggins & Kandola, 2004; Joseph & Newman, 2010; ; Mignonac, Herrbach, & Gond, 2003; Rode, et.al., 2007; Sy & Coté, 2004). Furthermore, various researchers have identified that EI indexes have critical implications for training and development (Cherniss, 2000; Cummings & Worley, 2005; Kunnanatt, 2004; Rozell, Pettijohn, & Parker, 2004), executive coaching (Peterson, 1996), team effectiveness (Druskat & Wolff, 2001), and for organisational change settings (Sy & Coté, 2004).

3.1.5 EQ versus IQ

Intelligence quotient (I.Q.) is an assessment of cognitive ability to think and reason in relation to others. It was developed and used during the initial part of the 20th century as measures of intelligence and cognitive skills. It measures a person's cognitive intelligence relative to his peers by dividing his mental age (as measured on a scale such as Stanford-Binet Scale) by his chronological age and multiplying with 100. French psychologist Alfred Binet pioneered the modern intelligence testing movement in developing a measure of mental age in children, a chronological age that typically corresponds to a given level of performance (Myers, 1998). More modern studies linked a person's I.Q. with their potential for success in general (Weschler, 1958) as well as with elements such as leadership success (Lord, DeVader, & Alliger, 1986). However, the validity of the general academic measure of I.Q. was soon challenged on the grounds that it did not consider situational factors such as environment or cultural setting when predicting achievement (Riggio, Murphy, & Pirozzolo, 2002).

IQ tests are used as an indicator of rational thinking, logical reasoning ability and technical intelligence. A high IQ is needed for shining in technical aspects of work and for rising to the top ranks of business today. However IQ itself is not adequate to predict executive competence and corporate success and a high IQ does not even guarantee that someone will stand out and rise above everyone else. Scholars and theorists suggested that mere cognitive intelligence as measured by I.Q. tests couldn’t represent the entire intelligence and there exist several other types of intelligences that assist the traditional intelligence.

A variety of intelligences along with Emotional Quotient (EQ) was identified by notorious scholars in different fields. Emotional Quotient is a tool to measure the ability of a person to understand, control, manage, use and regulate emotions in self and others for personal and organisational purposes. Emotional Quotient is very important for success and good performance in business and non business enterprises. Good Emotional Quotient along with high cognitive skills makes good results and both concepts are needed for the successful performance. Intelligence

Quotient is identified as a value that assesses a person's ability to learn, understand and apply the skills in a meaningful way while Emotional Quotient is identified as a tool to lubricate and accelerate the rational and cognitive functions. Scholars and academicians have identified the major differences between Emotional Quotient and Intelligence Quotient on the basis of various internal and external factors. In Intelligence Quotient the information and its processing plays a major role while emotions and feelings forms the major part of Emotional Quotient. The major features and differences of Emotional Quotient and Intelligence Quotient are given in the following table 3.1.

Table 3.1

Comparison between EQ and IQ

Basis for Comparison	**Emotional Quotient (EQ)**	**Intelligence Quotient (IQ)**
Definition	Emotional Quotient (EQ) is the level of emotional intelligence in terms of the ability to recognise, assess, use and regulate emotions.	Intelligence Quotient (IQ) is a score or number obtained from standardised tests to assess the ability of logical reasoning.
Origin	The term 'emotional quotient' was initially used by Keith Beasley in 1987 in his article. The term 'Emotional Intelligence' was coined by Peter Salovey and John D. Mayer which was popularised by the work of Daniel Goleman.	English statistician Francis Galton's introduced this concept in 1883 in his work, 'Inquiries into Human Faculty and its Development'. IQ test was developed by French psychologist Alfred Binet in 1905
Abilities	Identification of emotion Evaluation of emotion Expression of emotion Assessment of emotion Perception of emotion Recognition of emotion Use of emotion Regulation and control of emotion	Learning Understanding Reasoning Comprehension Calculation Spatial thinking Information processing

Basis for Comparison	**Emotional Quotient (EQ)**	**Intelligence Quotient (IQ)**
Measures	Mayer Salovey Caruso Test Wong and Law Emotional Intelligence Test Daniel Goleman Model Scores	Standford-Binet Test Wechsler Woodcock-Johnson Test
Acquisition	It can be learnt, improve and modified through learning and training process.	It is inborn and innate ability
At the Workplace	Emphasis for team work Ensures good leadership skills Provides successful workplace relationships Provides high service orientation Takes initiative. Ensures collaboration Cultivate mutual understanding	Helps to fulfil challenging tasks Provides logical and rational skills Helps in analysing the situation Keeps connected with information Promotes research and development
Biological Function	It originates from the limbic system of brain. Thalamus, amygdala and brain cortex plays important roles in emotional processing.	It functions from neo cortex part of brain which is considered as the top portion of brain system.
Output	Helps to succeed at job Helps in identifying emotions in self and others Helps to get through life Helps in avoiding confrontation Make aware of how to behave and act	Helps to get in the door Helps in learning and understanding Try to convince some one by facts Helps to obtain good academic scores Helps in solving logical problems Make aware of cognitive skills

3.1.6 Development of EI

It is very interesting to trace back the history and development of Emotional Intelligence concept. It is as old as emotions in human beings and can be thought as existing in the world from the existence of human beings. The appearance of the EI concept in the literature can also be tracked a long back with arrival of writings on emotion, cognition and its functions. However the EI concept has appeared in academic literature recently in 80s and 90s. It appeared in the management literature very recently with publication of vibrant articles on emotional intelligence by management experts in leading journals. Today there exist various theories, models and assessing tools of EI from different aspects for different uses.

The religious teachings have given more importance for emotions and its regulation. The teachings of Islam, Christianity, Jewish etc. identify different kinds of emotions in human beings and preach about the need of emotional awareness and emotional regulation for successful life. It was Aristotle who was the first to mention the importance of emotions in human interaction (Langley, 2000). Goleman asserts that Aristotle has earlier highlighted this fact by his words that employees possessing the rare skill to be angry with the right person, to the right degree, at the right time, for the right purpose, and in the right way will successful at any stage of life (Goleman, 1996). So it can be understood that Aristotle has made very meaningful narrations about emotions, its origin and control very long back.

The landmark writings of Thorndike (1920) on intelligence have paved way for the real theory of emotional intelligence. In the old days intelligence was thought as intellect, cognition and reasoning skills. The intelligence of an individual was measured based on his intellectual and cognitive skills. Intelligence Quotient (IQ) was the only tool to measure human intelligence. Thorndike spoke very firstly about the non intellective elements of intelligence. He believed that there were different types of intelligence. He figured out different types of intelligence in which some are measured with IQ tests and the some others are measured with other tools. The intelligence that was measured using IQ tests was named as abstract intelligence. One of the intelligence type used to understand and manipulate shapes and objects

was named concrete intelligence. The other type of intelligence was identified by Thorndike as social intelligence. Thus, he differentiated intelligence into a multimodal approach that comprised three types of intelligence; Firstly, an *abstract intelligence* which deals with ideas and symbols; secondly, a *mechanical intelligence* which deals with objects and technical concepts, and thirdly, a *social intelligence* that defines successful interaction with other individuals (Wechsler, 1958) Thorndike defined social intelligence as "the ability to understand and relate to people" (Bagshaw, 2000:63). This third type of intelligence or social intelligence is what is today identified as emotional intelligence.

The psychologist David Wechsler (1940) got interested later in the intellectual and the non intellectual abilities of human beings. He emphasised that affective, social and personal factors have considerable importance to interact effectively (Wechsler, 1940). Three years later, Wechsler (1943, 1958) stated that non-intellectual abilities are necessary and responsible factors to possess for individuals in order to manage successfully; still he suggested that there are definite non cognitive aspects which are responsible for an intelligent human behaviour.

Howard Gardner (1983) was the well known writer to talk about today's emotional intelligence after Thorndike. He is an American developmental psychologist and has penned hundreds of research papers. He revived and revised the social intelligence theory of Thorndike suggesting that there were seven types of intelligence through his multiple intelligence theory as postulated in his landmark book 'Frames of Mind; The Theory of Multiple Intelligences'. Howard Gardner never directly referred or mentioned about emotional intelligence. He advocated the concepts of intrapersonal and interpersonal intelligences which are indirectly referred to the existence of emotional intelligence. To a great extent his writings on interpersonal and intrapersonal intelligences have been used as source to develop almost all newer models of emotional intelligence. Gardner viewed intelligence as "a capacity for solving problems or to fashion products that are valued in one or more cultural setting" (Gardner & Hatch, 1989). To review the literature he used eight criteria of intelligence which are:

- Potential isolation by brain damage. The existence of idiots savants, prodigies and other exceptional individuals.
- An identifiable core operation or set of operations.
- A distinctive development history, along with a definable set of 'end-state' performances.
- An evolutionary history and evolutionary plausibility.
- Support from experimental psychological tasks.
- Support from psychometric findings.
- Susceptibility to encoding in a symbol system.

Howard Gardner initially formulated a list of seven intelligences. His listing was provisional. The first two have been typically valued in schools; the next three are usually associated with the arts; and the final two are what Howard Gardner called 'personal intelligences' (Gardner 1999: 41-43). These seven intelligence types are discussed below in some detail:

Linguistic intelligence: It is the ability to sensitise the spoken and written language, to learn languages, and to use the language to enable certain goals. This intelligence helps one to express his views and thoughts effectively using language rhetorically and poetically and in remembering information. Writers, lawyers, speakers and poets who deals with languages regularly are some examples for this linguistic intelligence.

Logical - mathematical intelligence: it is the capacity to execute mathematical operations, analyse complex issues logically and probe serious issues scientifically. In Howard Gardner's words, it entails the ability to detect patterns, reason deductively and think logically. This type of intelligence mostly associated with mathematical and scientific thinking.

Musical intelligence: The ability of an individual to compose, appreciate and perform musical patterns includes the musical intelligence. Howard Gardner opines that musical intelligence works in all structures that are parallel to linguistic

intelligences. This intelligence encompasses the ability to compose and recognize musical tones, pitches and rhythms.

Bodily-kinaesthetic intelligence: This kind of intelligence includes the capacity to use one's whole body or parts of the body to make solutions for serious problems. It helps in using mental abilities for coordination of bodily movements as Gardner postulates mental and physical activity as related.

Spatial intelligence: This intelligence is related with space where it helps in recognizing the spatial parameters. It enables using different patterns of space and more confined areas.

Interpersonal intelligence: Interpersonal intelligence is the capacity to perceive the feelings, motivations, intentions, and desires of other people. Those people having good interpersonal intelligence can work effectively with others. High interpersonal intelligence is generally required for the good performance of salespeople, educators, salespeople, religious and political leaders and counsellors.

Intrapersonal intelligence: This intelligence means the ability to understand oneself, to appreciate one's thoughts, desires, feelings, fears and motivations. According to Gardner intrapersonal intelligence involves having an effective working model of ourselves, and to be able to use such information to regulate our lives.

Gardner argues that the seven intelligences operate independently very rarely. In most cases they are used simultaneously and tend to complement each other as people develop skills or solve problems. The other important claim in this regard is that the seven intelligences are amoral and can be both constructive and destructive. Any way the model and theory developed by Howard Gardner was further modified by research done by Gardner and Hatch (1989), where they developed the idea of multiple intelligences, which were distinctly different from that of IQ (Dulewicz and Higgs, 2000).

Peter Salovey and John Mayer are the two fortunate psychologists to coin the term "emotional intelligence" in 1990. The actual term "Emotional Intelligence" was

constructed by them as they published their paper "Emotional Intelligence" (Salovey & Mayer, 1990) and suggested that research in the non-cognitive science was, at that time, still in the early days. Further they proposed a research project to develop a reliable and valid instrument with which the Emotional Intelligence can be assessed. Salovey and Mayer (1990) carried out extensive and comprehensive tests in order to establish emotional intelligence as a genuine intelligence based on the concept and definition of intelligence (Langley, 2000). Salovey and Mayer (1990) posited in their work that intellect and emotional intelligence were two ultimate different constructs which used different parts of the brain. Based on their extensive investigation and research they developed a well versed norm-tested EQ Scale. In this manner they suggested that emotional intelligence is composed of four branches as managing and regulating emotion, understanding and reasoning about emotion, assimilating basic emotional experiences, and perceiving and appraising emotions.

The "ability model" was developed by Salovey and Mayer during the 1990s, and has been said to be the most theoretically well clarified model (Palmer, et al., 2001). In this model emotional intelligence is conceptualized in the traditional sense, where it is conceptually related to a set of mental abilities to do with emotions and the processing of that emotional information. Mayer and Salovey "have fully operationalised emotional intelligence according to a four-branch hierarchical model from basic psychological processes to higher more psychologically integrated processes. These four core abilities of the model are further operationalised to include four specific skills related to each, forming a 4 x 4 or 16 ability-based model of emotional intelligence" (Palmer, et al., 2001:6).

The instrument that was developed from the "ability model" of emotional intelligence is the Multifactor Emotional Intelligence Scale (MEIS) (Mayer, Caruso and Salovey, 1998). The MEIS tests the individual's ability, and yields a total emotional intelligence score as well as scores for each of the four branches of emotional intelligence (as mentioned above). The test includes a series of 12 tasks that are designed to assess the person's ability to perceive, assimilate, understand, and manage emotion (Mayer, et al., 1998). A newer version of this instrument was

released in 2000, called the MSCEIT (The Mayer-Salovey-Caruso Emotional Intelligence Test), and according to its developers (Mayer, et al., 2000) will yield the same type of scores as the MEIS.

The next stage in the development of emotional intelligence is the Goleman era. Daniel Goleman was a psychologist from Harvard University who worked in the field of brain and behavioural science and began to publish papers for "Psychology Today" (Goleman, 1995). In the beginning his focus was merely on intelligence measurements (IQ test) and aspects of successful life management and organisation. He considered the theory that the rational power of the brain is important - as well as the intelligent management of our own emotions and the sensitive interaction with human beings. His later work (Goleman,1995; Petrides, 2001) developed from his earlier ideas, and he went on to especially emphasise the importance of emotional expression and self-management Daniel Goleman is the hero of emotional intelligence literature as he popularised the concept of emotional intelligence by preaching and writing far effective books and articles. His 1995 book on EI titled as 'Emotional Intelligence why it can matter more than IQ?' has undoubtedly attracted a huge audience and readers to the EI field and made it a buzzword and highly debated topic among academicians and researchers. Daniel Goleman, a well known psychologist, got interested in the concept of emotional intelligence reading the research works and valuable writings of Peter Salovey and John Mayer on emotional intelligence in 1990's. Finally he wrote the land mark book in emotional intelligence literature titled as 'Emotional Intelligence' (1995). He defines emotional intelligence as "a learned capability based on emotional intelligence that results in outstanding performance at work" Goleman (2001, p.27). He developed a mixed model of emotional intelligence comprising four main constructs as follows:

- Self Awareness
- Self management
- Social Awareness
- Relationship Management

This four branch model is considered as a great and authentic addition to EI literature. Goleman (1998) explains the self awareness as the ability of an employee for identifying self emotions and recognising their effects in making decisions. Second component, self management refers to the ability to control emotions and impulses in self that enables for adapting different circumstances. Third component, social Awareness refers to the skills of understanding and reacting to the emotions in others that enable in developing social relationships. The last construct relationship management illustrates the skill for impacting, inspiring and developing others during the conflict management.

Goleman has posited twenty emotional competencies which come under these four branches. The first branch, Self Awareness, includes three emotional competencies while second one comprises of six emotional competencies. The third branch, social awareness, includes three emotional competencies and the last branch eight emotional competencies. Below table is summated form of the emotional competencies that was conceptualised by Goleman (2001) in his frame work.

According to Goleman "Emotional intelligence includes ability to motivate oneself and persist in the face of frustrations; ability to control impulse and delay gratification; ability to regulate one's moods and keep distress from swamping the ability to think; ability to empathize and hope" (Goleman, 1995, p. 34). Goleman has developed his EI model and theory based on the notion of emotional competencies. Emmerling & Goleman (2003) defines emotional competence as "a learned capability based on emotional intelligence that can result in outstanding performance at work". Further to this Emmerling & Goleman (2003) assert that Mayer & Salovey's definition of emotional intelligence represents our potential for achieving mastery of specific abilities, whereas emotional competencies represent the degree to which an individual has mastered specific skills and abilities.

Goleman's (1995) initial approach to the EI was consisted of the five major components. These five components are:

- Knowing one‘s emotions (this means to be aware of what emotions one is experiencing and why)
- Managing emotions (it means to regulate one‘s own emotions, to stay calm in potentially volatile situations and to maintain composure irrespective of one‘s emotions)
- Motivating oneself (it means to remain focused on targeted goals despite of failures, to work with the hope of success and not with the fear of setback and to accept change to achieve goals)
- Recognizing emotions in others (it means to understand the emotions and feeling conveyed through verbal and nonverbal messages, to make emotional support to people as needed and to understand the relationships between others’ emotions and behaviours).
- Handling relationships (it means to deal with problems and difficulties without neglecting co-workers, to not cause the self or others negative emotions to eliminate collaboration and to handle the conflicts and problems with tact and diplomacy.

However Goleman’s competency approach towards emotional intelligence aims to identify and validate specific capabilities against effectiveness measures. These capabilities can be discovered inductively or articulated consequently as competencies. Much research has focussed on predicting and explaining the effectiveness of employees in performing various occupations and job with a special focus on managers and leaders (Boyatzis, 1982: Luthans, Hodgetts & Rosenkrantz, 1988; McClelland, 1973; Spencer & Spencer, 1993). Anyway Goleman (1995) get interested in linking the theory of action and job performance to the concept of emotional intelligence.

3.1.7 Theories of EI

EI theory of Salovey and Mayer: Peter Salovey and John Mayer first coined the term "emotional intelligence" in 1990 (Salovey & Mayer, 1990) and have since

continued to conduct research on the significance of the construct. Their pure theory of emotional intelligence integrates key ideas from the fields of intelligence and emotion. From intelligence theory comes the idea that intelligence involves the capacity to carry out abstract reasoning. From emotion research it comes the notion that emotions are signals that convey regular and discernible meanings about relationships and that at a number of basic emotions are universal (Mayer, Salovey & Caruso, 2002). They propose that "individuals will be different in their ability to process information with an emotional nature and in their ability to relate emotional processing to a wider cognition". They then posit that "the ability to process emotions is seen to manifest itself in certain adaptive behaviours" (Mayer, Salovey & Caruso, 2000).

Mayer and Salovey's conception of emotional intelligence is based within a model of intelligence. The attempt of this conception is mainly to limit the emotional intelligence aspects within the boundaries of the natural criteria for any intelligence (Mayer, Salovey, Caruso & Sitarenios, 2003). It proposes that emotional intelligence is comprised of two areas. The first area 'experiential' involves abilities of an employee to respond, perceive, and manipulate emotional information without comprehending it. The second area 'strategic' includes the abilities to manage and understand emotions without experiencing feelings well. These areas clearly exhibit the complex biological and psychological procedures that are included in integration of emotion and cognition. The first branch namely, emotional perception, refers to the ability of an individual to understand emotions in self and to express these emotions and emotional needs precisely to others. Ability to distinguish between honest and dishonest expressions of emotion is generally included in emotional perception. Emotional Assimilation, the second branch means the ability to discriminate among the various emotions in self and to identify those emotions that influence their thought processes.

Emotional Understanding, the third branch, is the ability to understand complex emotions (such as feeling two emotions at once) and the ability to recognize transitions from one to the other. Lastly, the fourth branch, *emotion*

management, is the ability to connect or disconnect from an emotion depending on its usefulness in a given situation (Mayer & Salovey, 1997). However the initial concept of Emotional Intelligence that came from Salovey and Mayer (1990) integrates four characteristics namely Emotional Integration, Emotional Perception, Emotional Management and Emotional Understanding. These ability areas can be further divided into sub-divisions highlighting different psychological processes. Emotional Perception normally consists of the awareness of subjective emotions, the evaluation of emotions, and the expression and or the display of emotions in a human being. Emotional Integration on other side means that emotions adapts into the cognitive system to maintain information about noticed signals. Finally the Emotional Understanding means the perception of the differences and similarities of various emotions in order to analyse them. Emotional Management highlights the reflexive regulation of emotions. This is an ability that enables the individual to evaluate emotions and the different kinds of information they convey (Mayer & Salovey, 2000).

Goleman's Conception of Emotional intelligence: The conclusions and findings of Mayer and Salovey were more scientific and as a result their work was largely limited to a small scale of audience which resulted in their work not being widely known. This enabled Goleman (1995), to publish his book *Emotional Intelligence* through a more accessible route and to leverage between the social and public science pathway ensuring a wider range of audience. Daniel Goleman was a psychologist from Harvard University who worked in the field of brain and behavioural science and began to publish papers for "Psychology Today" (Goleman, 1995). In the beginning his focus was merely on intelligence measurements (IQ test) and aspects of successful life management and organisation. He considered the theory that the rational power of the brain is important - as well as the intelligent management of our own emotions and the sensitive interaction with human beings. His later work (Goleman, 1995; Petrides, 2001) developed from his earlier ideas, and he went on to emphasise the importance of emotional expression and self-management.

Daniel Goleman is considered as the hero of emotional intelligence literature as he popularised the concept of emotional intelligence by preaching and writing far effective books and articles. His 1995 book on EI titled as 'Emotional Intelligence why it can matter more than IQ?' has undoubtedly attracted a huge audience and readers to the EI field and made it a buzzword and highly debated topic among academicians and researchers. Daniel Goleman, a well known psychologist, got interested in the concept of emotional intelligence reading the research works and valuable writings of Peter Salovey and John Mayer on emotional intelligence in 1990's. Finally he wrote the land mark book in emotional intelligence literature titled as 'Emotional Intelligence'. Goleman (2001, p.27), identifies EI as "a learned capability based on emotional intelligence that results in outstanding performance at work". He developed a mixed model of emotional intelligence comprising four main constructs as follows:

- Self Awareness
- Self management
- Social Awareness
- Relationship Management

This four branch model is considered as a great and authentic addition to EI literature. "Self Awareness, the first construct, is the ability to read one's emotions and recognise their impacts while using gut feelings for guiding decisions. Self Management, the second construct, refers to controlling one's emotions and impulses and adapting to changing circumstances. Social Awareness, the third construct, involves ability to sense, understand, and react to other's emotions while understanding social networks. Relationship Management, the fourth construct, refers to the ability to inspire, influence, and develop others while managing conflict" (Goleman, 1998).

Table 3.2

Goleman's Emotional Intelligence Competencies

Goleman's (2001) Emotional Intelligence Competencies		
	Self (Personal Competence)	**Other (Social Competence)**
Recognition	Self Awareness Emotional Self Awareness Accurate Self Assessment Self Confidence	Social Awareness Empathy Service Orientation Organisational Awareness
Regulation	Self Management Self Control Trustworthiness Adaptability Achievement Drive Initiative Conscientiousness	Relationship Management Developing Others Influence Conflict Management Leadership Communication Change Catalyst Building Bonds Team Work and Collaboration

Goleman has posited twenty emotional competencies which come under these four branches. The first branch, Self Awareness, includes three emotional competencies while second one comprises of six emotional competencies. The third branch, social awareness, includes three emotional competencies and the last branch eight emotional competencies. Below table is a sum of the emotional competencies that was conceptualised by Goleman (2001) in his framework.

According to Goleman (1995), Emotional intelligence is formed of "ability to motivate oneself and persist in the face of frustrations; ability to control impulse and delay gratification; ability to regulate ones moods and keep distress from swamping the ability to think; ability to empathize and to hope" (p. 34). Goleman has developed his EI model and theory based on the notion of emotional competencies. Emmerling & Goleman (2003), defines emotional competence as "a learned capability based on emotional intelligence that results in outstanding performance at work". Further to this Emmerling & Goleman (2003) assert that

Mayer & Salovey's definition of emotional intelligence represents our potential for achieving mastery of specific abilities, whereas emotional competencies represent the degree to which an individual has mastered specific skills and abilities.

Goleman's (1995) initial approach to the EI was consisted of the five major components. These five components are:

- Knowing one's emotions (this means to be aware of what emotions one is experiencing and why)
- Managing emotions (it means to regulate one's own emotions, to stay calm in potentially volatile situations and to maintain composure irrespective of one's emotions)
- Motivating oneself (it means to remain focused on targeted goals despite of failures, to work with the hope of success and not with the fear of setback and to accept change to achieve goals)
- Recognizing emotions in others (it means to understand the emotions and feeling conveyed through verbal and nonverbal messages, to make emotional support to people as needed and to understand the relationships between others' emotions and behaviours).
- Handling relationships (it means to deal with problems and difficulties without neglecting co-workers, to not cause the self or others negative emotions to eliminate collaboration and to handle the conflicts and problems with tact and diplomacy.

Thus Goleman has initially structured his concept of Emotional Intelligence in five parts as Self Awareness, Self Control, Motivation, Empathy, and Social Ability. Self awareness and self control are the intrapersonal processes which define the perception of emotions and the management of both good and bad emotions. Motivation, in Goleman's approach, focuses on the decision to perform in an optimistic, self-beneficial manner. This can be considered as a sort of self-responsibility to manage one's own life in spite of the various problems that one

meets. The interpersonal branches for Goleman are those of empathy and social ability. Empathy is the sensitive treatment of other individuals, enabling one to understand others and not to offend them. Social ability describes the ability to successfully interact with different kinds of people, and is often seen as an effective capacity for social networking. More recently, Goleman has combined social ability and empathy into a new classification of social management, bringing his list of categories to four rather than five (Carr, 2004; Goleman, 1995).

Goleman's competency approach towards emotional intelligence aims to identify and validate specific capabilities against effectiveness measures. These capabilities can be discovered inductively or articulated consequently as competencies. Much research works has been carried out for predicting effectiveness of different occupations with a special focus on leaders and managers (Boyatzis, 1982, Luthans, Hodgetts & Rosenkrantz, 1988; McClelland, 1973; Spencer & Spencer, 1993). Goleman (1995) was very eager to link the theory of action and job performance to emotional intelligence.

Bar-On's Views on EI: Reuven Bar On was a well known scholar and author in the field of emotional intelligence. He worked as a director of the 'institute of applied intelligences' in Denmark and studied deeply the prevalent concepts in EI fields to add valuable findings and suggestion to the literature of emotional intelligence. His great credit in emotional intelligence lays in that he coined the term Emotional Quotient (EQ) which is considered as a historical substitute to Intelligence Quotient (IQ). He was a brilliant consultant too and has consulted a lot of institutions and organisations in Israel. He was a pioneer to do research for about twenty years in the area of social and emotional intelligence (Bar-On, 1997). He states that non-cognitive intelligence is an important factor that determines effective life management. Bar-On coined the expression EQ, or Emotional Quotient (Bar-On, 2000), and thereby creates a parallel to the IQ or Intelligence Quotient. Whether or not EQ can be equally measured may in the future be open to debate, particularly as the notion of IQ has its critics (Herrnstein & Murray, 1996).

Reuven Bar On has developed a leading model of emotional intelligence. It is considered as the first mixed model of emotional intelligence. This model considers both pure mental ability and personality traits as the part of emotional intelligence. The model is mainly related to the potentials of performance and success. Bar On views that "his model can be related to the potentiality of success and performance rather than success or performance itself" (Bar On, 2002). It is considered as a process oriented rather than an outcome oriented and focuses on an array of emotional and social abilities that include the "ability to be identify, understand and express oneself, the ability to be identify, understand and relate to others, the ability to deal with strong emotions and the ability to adapt to change and solve problems of a social or personal nature" (Bar On, 1997). Bar On posits that "emotional intelligence is developed over time and it can be developed with the means of therapy, training and programming" (Bar On, 2002).

Bar On propounds five major components of emotional intelligence and his model is modified based on these five components as given below:

- Intrapersonal
- Interpersonal
- Adaptability
- Stress Management
- General Mood

Bar On's model identifies both interpersonal and intrapersonal abilities and it has a number of similarities with the Emotional Intelligence concept of Goleman. For example, Bar-On´s Emotional Intelligence model is organised around five categories: interpersonal (Self Awareness, Self Actualisation and Self Regard), intrapersonal (Empathy, Social Responsibility and Interpersonal Relationships), stress management (Stress Tolerance and Impulse Control), adaptability (Problem Solving, Reality Testing and Flexibility) and general mood (Happiness and Optimism).

According to Bar On an individual who has higher emotional quotient can be more successful and can perform well. By being high in EQ one can meet environmental demands and situational pressures successfully. On the other hand if one suffers of deficiency in emotional Quotient it will cause for not being successful and under performance. Further the lack of EQ means the existing of emotional problems and difficulties. He considers both cognitive intelligence and emotional intelligence as an equal contributor to the general intelligence of an individual. It provides an indication to ability or potential of a person for succeed in life (Bar On, 2002).

3.1.8 Prominent EI Models

An Ability Model by Salovey and Mayer: Peter Salovey and John Mayer who coined the term 'emotional intelligence' have conducted abundant research on the relevance and significance of EI construct. Based on the research they have developed an ability model of EI which was revised and modified in the later periods answering the call of need. Emotional intelligence, according to their conceptualization is a pure form of intelligence and technical ability without considering traits or personality characteristics. Till today only one ability model is developed in emotional intelligence literature which is done by Peter Salovey and John Mayer.

The EI theory and model developed by Salovey and Mayer finds its roots from the field of emotion and intelligence. From intelligence theory comes the idea that intelligence involves the capacity to carry out abstract reasoning. From emotion research it comes the notion that emotions are signals that convey regular and discernible meanings about relationships and that at a number of basic emotions are universal (Mayer, Salovey, & Caruso, 2002). They propose that "individuals are different in their abilities to process information with emotional nature and in their ability to relate this emotional processing to a wider cognition" (Mayer, Salovey & Caruso, 2000). They then posit that this skill is expressed for the sake of manifestation in certain adaptive behaviours.

The conceptualisation of Salovey and Mayer divides emotional intelligence into two broad areas as experiential and strategic. The 'experiential' is comprised of the ability for perceiving, responding and manipulating emotional information without understanding it. The strategic area means the ability of person to understand and manage emotions without perceiving feelings and without experiencing it. Each of these areas further consist two branches which integrates its key ideas from basic and complex psychological processes including emotion and cognition.

Figure 3.2: Salovey and Mayer's Four-Branch Ability Model of Emotional Intelligence

Thus it makes a four branch model (figure 3.2) which includes:

- Emotional perception
- Emotional assimilation
- Emotional understanding
- Emotional management

Emotional perception includes the ability of a person to be self aware of emotions and convey emotions and emotional needs clearly to others. Emotional assimilation means the ability to differentiate between blends of emotions one feel in his life and to understand those feelings that affect their thinking processes. By emotional understanding one understands complex and intricate emotions and recognizes the transitions among different blends of emotions. The fourth branch emotion management enables one in connecting or disconnecting from emotions based on the benefit and usefulness of emotion in different conditions.

Bar On's Mixed Model of Emotional Intelligence

Reuven Bar On was a well known scholar and author in the field of emotional intelligence. He studied deeply the prevalent concepts in EI fields and added valuable findings and suggestion to the literature of emotional intelligence. His great credit in emotional intelligence lays in that he coined the term Emotional Quotient (EQ) which is considered as a historical substitute to Intelligence Quotient (IQ). He was a brilliant consultant too and has consulted a lot of institutions and organisations in Israel.

Reuven Bar On has developed a leading model of emotional intelligence. It is considered as the first mixed model of emotional intelligence. This model considers both pure mental ability and personality traits as the part of emotional intelligence. The model is mainly related to the potentials of performance and success. Bar On's views that "his model can be related to the potentiality for performing and succeeding rather than succeeding or performing itself. It is further considered as a process oriented rather than an outcome oriented" (Bar On, 2002). It is based on a group of emotional and social abilities including the ability for

understanding and expressing oneself, the ability for identifying, and relating to others, the ability for dealkng with strong emotions and the ability for adapting to changes and solving the social or personal problems (Bar On, 1997). Bar On posits that "emotional intelligence get improved over time and it can be improved through therapy, programming and training" (Bar On, 2002).

Bar On propounds five major components of emotional intelligence and his model is modified based on these five components as given below:

- Intrapersonal
- Interpersonal
- Adaptability
- Stress Management
- General Mood

These five components are considered as main components which include subcomponents too as illustrated in table 3.3.

Table 3.3

Bar On's Model of Emotional Intelligence

Bar On's Model of Emotional Intelligence		
No	**Main Components**	**Subcomponents**
1	Intrapersonal	Self Regard Emotional Self Awareness Independence Self Actualisation
2	Interpersonal	Empathy Social Responsibility Interpersonal Relationship
3	Adaptability	Reality Testing Flexibility Problem Solving
4	Stress Management	Stress Tolerance Impulse Control
5	General Mood Components	Optimism Happiness

According to Bar On an individual who has higher emotional quotient can be more successful and can perform well. By being high in EQ one can meet environmental demands and situational pressures successfully. On the other hand if one suffers of deficiency in emotional Quotient it will cause for not being successful and under performance. Further the lack of EQ means the existing of emotional problems and difficulties. Bar On considers the equal contribution of emotional intelligence and cognitive intelligence to the general intelligence of an individual. It indicates to potential and skill of a person to succeed in any stage of life (Bar On, 2002).

Goleman's Mixed Model of Emotional Intelligence: Daniel Goleman is the hero of emotional intelligence literature as he popularised the concept of emotional intelligence by preaching and writing far effective books and articles. His 1995 book on EI titled as 'Emotional Intelligence why it can matter more than IQ?' has undoubtedly attracted a huge audience and readers to the EI field and made it a buzzword and highly debated topic among academicians and researchers. Many peoples who were absolutely ignorant of emotional intelligence started reading something on EI after this book was published.

Daniel Goleman was a well known psychologist and has written many literary works on behaviour and brain for the New York Times. He was a leading science writer too. He came to read the articles of Peter Salovey and John Mayer on emotional intelligence in 1990's and was very interested in the topic. Further he got inspired by their works and findings which led him to conduct more and more research of his own in the field. Finally he wrote the land mark book in emotional intelligence literature titled 'Emotional Intelligence'. Goleman (2001, p.27), defines EI as "a learned capability based on emotional intelligence that results in outstanding performance at work". He developed a mixed model of emotional intelligence comprising four main constructs as follows:

- Self Awareness
- Self management

- Social Awareness
- Relationship Management

This four branch model is considered as a great and authentic addition to EI literature. “Self Awareness, the first construct, is the ability to read one’s emotions and recognise their impacts while using gut feelings for guiding decisions. Self Management, the second construct, refers to controlling one’s emotions and impulses and adapting to changing circumstances. Social Awareness, the third construct, involves ability to sense, understand, and react to other’s emotions while understanding social networks. Relationship Management, the fourth construct, refers to the ability to inspire, influence, and develop others while managing conflict” (Goleman, 1998).

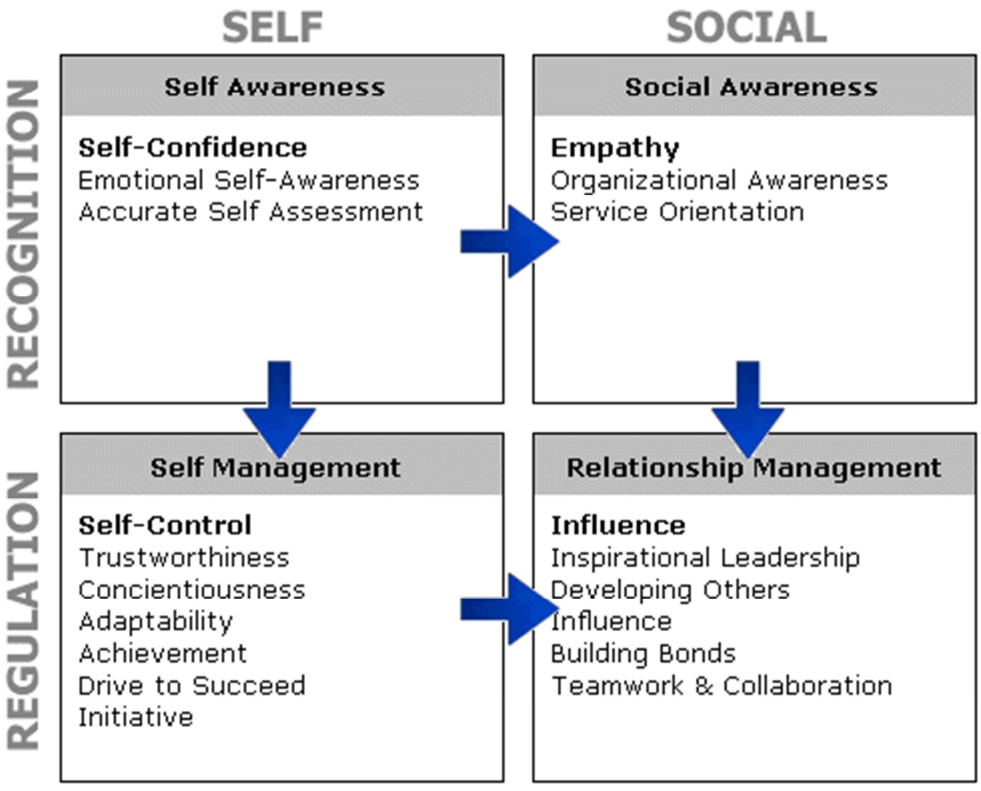


Figure 3.3: Goleman’s Four Branch Model of EI

Goleman has posited twenty emotional competencies which come under these four branches. The first branch, Self Awareness, includes three emotional competencies while second one comprises of six emotional competencies. The third

branch, social awareness, includes three emotional competencies and the last branch eight emotional competencies. Figure 3.3 provides the framework of emotional competencies as conceptualised by Goleman (2001). Each of these contains a number of sub-competencies.

According to Goleman, "emotional intelligence includes abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize and to hope" (Goleman, 1995, p. 34). Goleman has developed his EI model and theory based on the notion of emotional competencies. Emmerling & Goleman (2003) defines emotional competence as "a learned capability based on emotional intelligence that get resulted in outstanding performance at work". Further to this Emmerling & Goleman (2003) assert that Mayer & Salovey's definition of emotional intelligence represents our potential for achieving mastery of specific abilities, whereas emotional competencies represent the degree to which an individual has mastered specific skills and abilities.

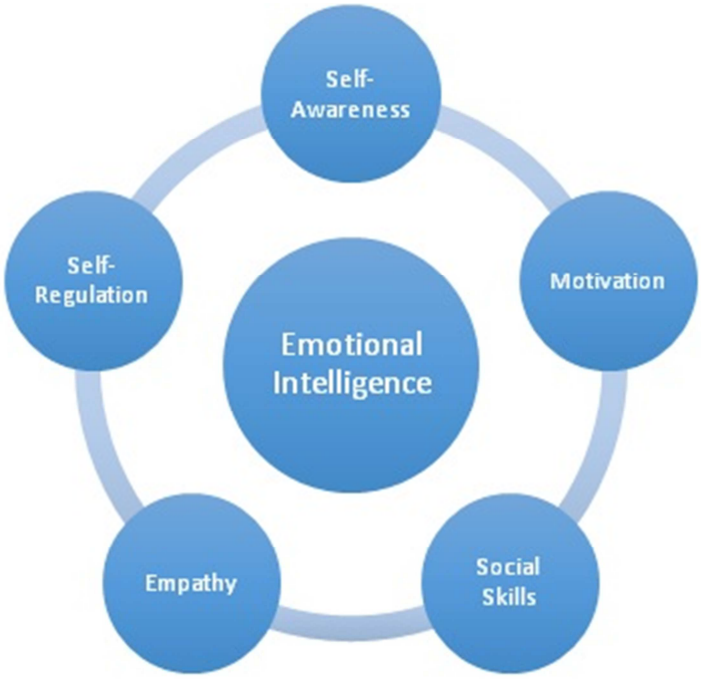


Figure 3.4: Goleman's Five Components of EI

Goleman's (1995) initial approach to the EI was consisted of the five major components as shown in figure 3.4. These five components are:

- Knowing one's emotions (this means to be aware of what emotions one is experiencing and why)
- Managing emotions (it means to regulate one's own emotions, to stay calm in potentially volatile situations and to maintain composure irrespective of one's emotions)
- Motivating oneself (it means to remain focused on targeted goals despite of failures, to work with the hope of success and not with the fear of setback and to accept change to achieve goals)
- Recognizing emotions in others (it means to understand the emotions and feeling conveyed through verbal and nonverbal messages, to make emotional support to people as needed and to understand the relationships between others' emotions and behaviours).
- Handling relationships (it means to deal with problems and difficulties without neglecting co-workers, to not cause the self or others negative emotions to eliminate collaboration and to handle the conflicts and problems with tact and diplomacy.

However Goleman's competency approach towards emotional intelligence aims to identify and validate specific capabilities against effectiveness measures. These capabilities can be discovered inductively or articulated consequently as competencies. Much research studies have focussed on \ predicting effectiveness in various occupations with a particular focus on leaders and managers (Boyatzis, 1982; Luthans, Hodgetts & Rosenkrantz, 1988; McClelland, 1973; Spencer & Spencer, 1993). Anyway Goleman's (1995) interest lies mainly in linking emotional intelligence to a theory of action and job performance.

According to Goleman (2001) emotional intelligence includes the abilities to recognise and regulate emotions in one self and in others. It includes four domains,

namely self awareness, social awareness, self management and relationship management. Out of these four domains the first two domains namely self awareness and self management relate to Gardner's (1983) intrapersonal intelligence, and the two other domains relate with the inter personal intelligence of Gardner. This most recent model was confirmed by statistical analyses conducted by Richard Boyatzis. Further Boyatzis *et al.* (2000), hold that "EI is observed when a person exhibits the competencies that constitute self-awareness, self-management, social awareness, and social skills at proper times and in sufficient frequency to be effective in the situation" (Boyatzis *et al.*, 2000, p.344). Personal competence includes the abilities to manage oneself and social competencies identify how an individual manages the relationships with others. "Twenty competencies nest in four clusters of general EI abilities" (Goleman, 2001, p.28).

According to Goleman nobody can exhibit competencies of Trustworthiness and Conscientiousness until get mastered in the fundamental abilities of self management. Goleman (2001) posits that EI manifests our capability for learning those practical skills that cover four EI clusters. Competence depicts to what extent we have realised this potential by learning and mastering skills to translate intelligence to "on-the-job capabilities" (p.28).

Several measurement tools have been developed to assess the emotional intelligence based on Goleman's mixed model of EI. There are different types of tools and questionnaires based on EI competencies and four - component model. All these tools try to assess EI of human beings considering EI as mixed form of ability and personality characteristics. Among these tools the most prominent ones are as follows:

- Emotional Competency Inventory
- Emotional Intelligence Appraisal
- Work Profile Questionnaire – Emotional Intelligence Version

3.1.9 Historical Roots of EI

The history of emotional intelligence is as old as the history of human emotion and cognition. Many scholars, philosophers and religious preachers have mentioned about emotions and it's regulation in their writings though there are no direct statements on term and concept of emotional intelligence. The great philosopher, Aristotle has made some reference decades ago to emotions and its consequences which discussed later on the tag of emotional intelligence.

An influential psychologist in the areas of learning, education, and intelligence, E.L. Thorndike proposed that humans possess several types of intelligence, one form being called "social intelligence, or the ability to understand and manage men and women, boys and girls, and to act wisely in human relations" (Thorndike, 1920). The writings and findings of Thorndike have been considered as a live milestone in the history of emotional intelligence. Later, David Wechsler, the originator of the Wechsler Adult Intelligence Scale (WAIS) intelligence tests, referred to both non-intellective and intellective elements of intelligence. The non-intellective elements, which included affective, personal, and social factors, he later hypothesized were essential for predicting one's ability to succeed in life (Wechsler, 1940). Later in the century, Howard Gardner again raised the notion of multiple intelligences. A Harvard-educated developmental psychologist, Gardner proposed a theory of multiple intelligences which dictated that individuals possess aptitudes in several areas, including verbal, mathematical, musical, spatial, movement oriented, environmental, intrapersonal (the examination and knowledge of one's own feelings) and interpersonal (the ability to read the moods, intentions, and desires of others) spheres (Myers, 1998). These intelligences were thought by Gardner to be as important as the type of intelligence typically measured by I.Q. tests (Gardner, 1983).

3.1.10 Measures of EI

Multi Branch Emotional Intelligence Scale (MEIS): It is a multi branch scale to assess the emotional intelligence of human beings. It includes twelve subscale measures of emotional intelligence and is a long scale with 402 items. This multi

branch scale was developed by Peter Salovey and John Mayer as a part of testing their four branch model of emotional intelligence. Peter Salovey and John Mayer who coined the term EI proposed a widely celebrated model of emotional intelligence that consist of four branches namely emotional perception, emotional assimilation, emotional understanding and emotional management. This scale was modified based on these branches indicating that emotional intelligence is a distinct intelligence with three separate sub factors as emotional perception, emotional understanding and emotional management.

The validity and consistency of the scale was examined and tested from different angles. Evidence was found for discriminant validity proving that the emotional intelligence is independent of general intelligence and self reported empathy. It further indicated its ability to assess unique characteristics of an individual which was not measured by earlier tests. However this scale has failed in many aspects and has certain limitations too. It is a very length tool with 402 items which makes it troublesome to respond and boredom. It failed in earning a convincing evidence for its integration branch out of the four branches of model. Only very limited evidence was found for this integration branch of emotional intelligence related to integration of emotions.

Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT): Mayer-Salovey-Caruso Emotional Intelligence Test is a recent measure developed by Peter Salovey, John Mayer and Caruso. When the Multi Branch Emotional Intelligence Scale (MEIS), an earlier measure developed by Salovey and Mayer, was criticised for its limitations and limited evidence of integration branch this new measuring tool was developed. This tool is composed of 141 items and divides the yields in to six scores. These scores include two area scores of experiential EI and strategic EI and four branch scores of four branches in emotional intelligence model of Mayer and Salovey. An overall emotional intelligence score is also calculated encompassing all these scores.

The validation of this scale was done by a sample of 5000 respondents including men and women from different research sites worldwide. Basically this

tool is developed for people of 17 years and above. It assesses the main four abilities as figured out in Salovey and Mayer's model of emotional intelligence. These abilities are perception, facilitation of thought, understanding and regulation. They have prepared specific tasks to measure each of these abilities. Different types of pictures are used to assess the perception of emotion. Respondents express their emotions and feelings toward pictures according to which their perception is recorded and rated. Respondents are asked to draw parallels between emotions and physical sensations like temperature, light and colour or between emotions and thoughts to measure their ability on facilitation of thought. The rater asks respondents to explain about their emotions and how certain emotions derive from other emotions. These explanations are then used to assess the understanding of emotion ability. The ability to regulate emotions is assessed by instructing respondents to choose best management techniques for managing emotions of self and others.

MSCEIT can be considered as an absolute and perfect EI test as it classify the respondents based on the scores of EI. This tool is widely used in different situations ranging from corporate, clinical, research, educational, academic and creative settings. Stability estimates, consistency reporting, content validity, structural validity, criterion - related validity, construct validity and incremental validity were tested for this tool with appropriate tests and duly reported. The stability estimates of the MSCEIT were in the form of test retest reliability after three weeks and internal consistency in the form of split half reliability. Content validity was reported as good as two subtasks of the scale were to measure all of the four branches of emotional intelligence model. Structural validity was established through factor analysis with multiple criteria for goodness of fit (GFI). Criterion related validity was good which was stated with concurrent and predictive validities. Construct validity of the scale is mainly depicted through convergent and discriminant validity measures. The incremental validity was also tested and found to possess good incremental validity as MSCEIT was able to find out social deviance in a sample of college students.

Bar On Emotion Quotient Inventory (EQ - i): Bar On Emotion Quotient Inventory (EQ - i) is the prevalent measuring tool to measure the emotional quotient based on Bar On's mixed model of emotional intelligence. This measure targets the population of sixteen years and above and is modified as a self report measure to assess the emotional intelligence of individuals. This inventory measures the behaviour of employees in terms of social and emotional competence and produces an indication to the emotional and social intelligence. "It doesn't mean to measure the personality traits or cognitive capacity and measure one's ability to succeed in dealing with different environmental pressures and demands" (Dawda & Hart, 2000; Bar On, 2002).

This tool consists of five composite scales to measure the main five components in the mixed model of Bar On which are:

- Intrapersonal EQ
- Interpersonal EQ
- Adaptability EQ
- Stress Management EQ
- General Mood EQ

All these five scales measure its items on a five point sale which range from1 as very seldom, or not true for me to 5 as very often, or often true me. In total this tool composes of once hundred and thirty three items and these are used to assess the total emotion quotient.

Today there exist different versions of Emotion Quotient Inventory which are prepared by Bar On for different conditions, situations and population. Some of the major versions can be named as:

- EQ Interview
- EQ - i Short Version
- EQ – i: 125
- EQ – i Youth version
- EQ – 360 Assessment

EQ Interview is an interview type tool which has to be done after completing the self report. EQ -i Short Version is a short version of original emotion quotient inventory as the name itself indicates. It includes only fifty two items. EQ – i: 125 is a modified version of original emotion quotient inventory and include one hundred and twenty five items in the scale. It excludes all the negative impression items in the original scale. EQ – i Youth version is prepared for children and adolescents from seven years two fifteen years. EQ – 360 Assessment is a multi rater tool. It is usually used along with original emotion quotient inventory or EQ – i to get an overall assessment from all aspects. Emotion Quotient Inventory (EQ - i) is further translated to several languages for easiness of use and access. It is available in Spanish, Danish, Finnish, Hebrew, Swedish, Dutch and French languages.

The pilot study of the EQ – i was done on a sample of 4000 respondents from U.S. and Canada. Stability estimates were reported for the tool in the form of test retest reliability. The authors has reported internal consistency in the form of Cronbach's alpha as ranging from .69 to .86 for fifteen subscales and an overall average internal consistency of .76 (Bar On 2002). Content validity was reported as adequate while the structural validity was found out through factor analysis to support five components of emotional intelligence. Convergent and divergent validity was used to depict the construct validity of the scale.

Emotional Competency Inventory: Richard Boyatzis (1994) has developed a measure of competencies for managers, executives and leaders. This measurement tool is a self assessment tool. Daniel Goleman developed his Emotional Competency Inventory based on this tool of Boyatzis and his own emotional competencies. Emotional competency inventor is 360 degree multi-rater questionnaire rating several behavioural indicators of emotional intelligence. The rating is done from the side of self, manager, peer and direct reports. It measures all the four components along with broad twenty competencies as posited by Daniel Goleman in his model. These four components include self awareness, social awareness, self management and relationship management dividing into two major parts as self skills and social skills. In this instrument respondents have to describe their own emotions and skills

as well as other persons on scale ranging from one to seven where one means the behaviour is only slightly characteristic of individual and seven means the behaviour is very characteristic of individual for all items. Later these items are composed to assess each competency. However there happen two forms of ratings as self rating and other's rating.

The pilot study of inventory has been done on six thousands respondents from North America and United Kingdom. The majority of the normative sample where white male holding mid to senior level management positions (Sala, 2002). The technical manual reports internal consistency in the form of Cronbach's alpha as ranging from .73 to .92 for the total others ratings and from.60 to .85 for the self ratings (Sala, 2002). The content validity was reported in the technical manual through self assessment study and structural validity was tested using factor analysis to determine if Goleman's emotional competencies clustered around the proposed four branch model of EI has not been promising due to high inter-correlations and theoretical interrelations among competencies (Sala, 2002).

Emotional Intelligence Appraisal: Travis Bradberry, Jean Greaves and other members of the Telnet Smart Research Team mad an attempt to create a quick and effective assessment tool to assess emotional intelligence in different situations. This creative attempt led them development of Emotional Intelligence Appraisal tool. This tool is purely based on four component model of emotional intelligence as developed by Daniel Goleman including self awareness, social awareness, self management and relationship management. The tool uses 28 items to measure these four components and can be completed in seven minutes approximately. All items in the appraisal tool examines the existence skills reflected through four components of Goleman and the rating is done on a scale ranging from 1 to 6 where 1 means never occurs the behaviour and 1 means always occurs behaviour. However the emotional intelligence appraisal divides the outcome into four meaningful parts. One part provides an overall EQ score and the other four parts provides results for each of emotional intelligence components as posited by Goleman. To the credit of this appraisal tool this tool is available in three distinguish formats as Me Edition (This

is a self report), MR Edition (This is prepared to measure the EQ in 360 degree format) and a Team Edition (This measures the EQ of an intact group) (Bradberry, Greaves, Emmerling, et al., 2003).

Emotional Intelligence Appraisal was normed on a sample comprising male and female from North America aged between 30 and 49. The tool failed to report any stability estimate. The internal consistency was reported in the technical manual reports in the form of Cronbach's alpha as ranging from .86 to .99 for the Me Edition, from .73 to .94 for MR Edition and from .77 to .99 for the Team EQ Edition. Content validity was established through expert development of items related to each of the subscales and structural validity was tested using factor analysis to determine if the 28 items clustered around Goleman's emotional competencies. It suggested the best fit for the measure was a one factor overall EQ score, with some support for a two-factor model made up of personal and social competencies (Badberry et al., 2003)

Work Profile Questionnaire - Emotional Intelligence Version: The work profile questionnaire - emotional intelligence version (WPQei) is a self report measure designed to measure emotional intelligence based on seven competencies as postulated in the EI model of Daniel Goleman. It examines the personal qualities and competencies of employees which are considered as essential for effective work performance in the work context. This questionnaire is very short and normative comprising 84 items which needs an average of ten minutes only. The WPQei is considered as well fitted to training, coaching and team building scenarios.

As the WPQei is developed based on seven competencies in Goleman's model the result gives the respondents an overall score for emotional intelligence along with additional scores for each of the seven competencies. The seven competencies of components measured in the questionnaire are:

- Innovation
- Self awareness
- Intuition

- Emotions
- Motivation
- Empathy
- Social skills

The levels of emotional awareness scale: The Levels of Emotional Awareness Scale (LEAS) is a self report measure of emotional intelligence. This tool assesses the awareness of individuals on emotions of self and others. The measure is based on a hierarchical theory of emotional intelligence, more specifically of emotional awareness, which consists of five sub levels: physical sensations, action tendencies, single emotion, blends of emotion and blends of these blends of emotional experience (Lane and Schwartz, 1989). In total there are twenty scenarios in this questionnaire including two people and a situation to elicit emotions. The indications from the part of respondents are collected on how they would feel in the set situation and how the other person in the scenario would feel in the present situation. The scenarios are entitled with a score ranging from 0 to 5 as per the Emotion Awareness theory of Lane and Schwartz suggests. Finally the scale provides three scores where participants receive scores for awareness of emotions in self, for awareness of emotions in others and for total emotional awareness (Lane et al., 1990).

'Levels of Emotional Awareness Scale' (LEAS) was normed on a sample of 385 persons from Arizona and Minnesota. Statistical evaluation of the scale found high inter-rater reliability and internal consistency, although no tests of stability have been performed (Lane, 2000). An independent review of the Levels of Emotional Awareness Scale concluded that it is only minimally related to emotional intelligence and would more accurately be classified as a measure of processing style rather than ability (Ciarrochi, Caputi, & Mayer, 2003).

The Self Report Emotional Intelligence Test: The Self Report Emotional Intelligence Test (SREIT) was developed by Schutte and his colleagues (1998). It is a self report measure of emotional intelligence consisting thirty three items. The measurement tool was developed based on the academic writings of Mayer and

Salovey on emotional intelligence. Participants are asked to indicate their responses to items reflecting adaptive tendencies towards emotional intelligence according to a five point scale, with 1 representing strong agreement and 5 representing strong disagreement (Schutte et al, 1998).

Trait Meta - Mood Scale: Trait Meta - Mood Scale (TMMS) is considered as the very first measure of emotional intelligence and especially that of trait emotional intelligence. The term meta-mood means to be aware of emotions and being caught up in any emotion to become aware of sweeping away by it. This scale was developed based on EI model of Salovey and Mayer (1990) to measure emotional beliefs and attitudes people have towards their own emotional experiences. The target group of this scale is adolescents between ages of twelve and seventeen. It is a five point Likert scale comprising thirty items. Attention to emotion, emotional clarity and emotion repair are the three factors of EI measured in this tool.

Schutte Emotional Intelligence Scale: The Scutte Emotional Intelligence Scale (SEIS) is a self report to assess trait emotional intelligence developed by Dr. Nicola Schutte, 1998. This scale was developed based on the EI model of Salovey and Mayer (1990) and is closely related with EQ-I model of emotional intelligence. It consists of thirty three items in a Likert Scale ranging from 1 (strongly agree) to 5 (strongly disagree). Mainly the four subscales of emotional intelligence as utilizing emotions, emotion perception, managing other's emotions and managing self relevant emotions are used in this scale which provides independent score for each subscale and a total score adding all these four subscales. This has been used as extensively in the literature and can be employed as a short measure of global trait EI (Schutte et al,. 2001).

Wong and Law Emotional Intelligence Scale: Wong and Law Emotional Intelligence Scale (WLEIS) is a popular self report emotional intelligence tool to measure the emotional intelligence in organisational research. It is developed by Wong and Law (2002) based on revised four branch ability model of Mayer and Salovey (1997) which are Self Emotion Appraisal (SEA), Other's Emotion Appraisal (OEA), Use of Emotions (UOE) and Regulation of Emotions (ROE). This

tool measures the self perceptions of individuals about their emotional intelligence. It consists of 16 items with four items in each branch of the model. Separate scores are provided for each branch and a total score by adding all the four branches.

3.1.11 Emotional Intelligence at Workplace

Emotional intelligence is believed to be a critical skill at workplace to build good positive work relations. It is thought to be an inevitable part for any organisation for its smooth functioning. Scores of studies have been undertaken to examine the importance and role of emotional intelligence at workplace in creating good work relationships. Every workplace is comprised of people with different kind of emotions and feelings which directly affect the work they do. Managers and employees in an organisation at different career stages are filled with multiple forms of emotions that they expose in their daily work life, in their frequent contact with co-workers, in their friendly gossips and in official communications that passes through official channels. Emotional intelligence is the ability of a person to identify these emotions in self and others in order to manage and control it positively.

The role of emotional intelligence as a success factor in work environment has been discussed since the introduction of emotional intelligence concept by Peter Salovey and John Mayer in their landmark article in 1990. The more scholars and writers were attracted to the concept when Daniel Goleman popularised it through his historical work 'Emotional Intelligence: Why It Can Matter More than IQ'. Many psychologists and experts in organisational wellbeing introduced emotional intelligence as a valuable asset in the workplace as employees with good emotional intelligence can better manage their emotions at workplace and cooperate with co-workers. They tend to manage work related stress, solve complex issues and conflicts, initiate necessary steps to create positive work relations and come forward to build good interpersonal linkages within work environment.

According to Daniel Goleman's (1995) initial approach on emotional intelligence an emotionally intelligent employee will be higher on five factors namely, in self awareness, self regulation, motivation, empathy and social skills. These five factors are very essential contributors to the workplace success and

perfection. The self awareness helps an employee to be aware of everything that happens in self which make him more alert in the workplace. Through self regulation one employee regulate and control everything that happens in self that enables him to avoid unnecessary tension and stress. The motivation factor contributes highly to the workplace success as it helps employees get motivated that will results in better output and increased turnover. The empathy is an inevitable component for smooth functioning of any organisation as it brings a cooperative and supportive culture at workplace. The social skills also play an important role in strengthening the workplace relationships forming healthy social relations at the workplace.

As an emotionally intelligent employee will create good workplace results an employee with low emotional intelligence will negatively impact his workplace and team members leading to poor workplace results. Employee low emotional intelligence can't manage his emotions and will fail in indentifying the emotions of others. He won't be able to take critical feedback of his works and will blame others for his mistakes. The low emotionally intelligent employee used to be passive and aggressive in behaviours and comments and express irrelevant opinions that are not valuable to the organisation.

Emotional intelligence is generally judged to affect a wide array of work behaviours at workplace including teamwork, employee commitment, service quality, innovation, talent development and customer loyalty. According to Cooper (1997) research attests that people with high levels of emotional intelligence experience more career success, build stronger personal relationships, lead more effectively, and enjoy better health than those with low emotional quotient. More emotionally intelligent individuals presumably succeed at communicating their ideas, goals, and intentions in interesting and assertive ways, thus making others feel better suited to the occupational environment (Goleman, 1998). It can be correlated to the social skills needed for teamwork, with high EI individuals particularly adept at designing projects that involve infusing products with feelings and aesthetics (Mayer & Salovey, 1997; Sjoberg, 2001). "Organisational leaders, who are high on

EI, in concert with a supportive organisational climate and the human resources team, may impact upon the relationships in the work settings. In turn, this affects the group and individual emotional intelligence and organisational commitment" (Cherniss, 2001). While there are long-standing norms about the display of emotion in the work environment, researchers found that emotion management might be related to healthy and constructive behaviour at the workplace (Meyer, Fletcher & Parker 2004)

3.1.12 Emotional Intelligence and Leadership:

To be a good leader favoured by subordinates is the ambition of every manager and employer who possess the higher positions in an organisation. Emotional intelligence is considered as the vital trait for any leader to be effective in his leadership position. A leader in an organisational setting frequently confronts with conflicts, work related issues and interpersonal quarrels where emotional intelligence skill help him in solving the issues. Leaders with high emotional intelligence are generally able to build rapport and trust with his workers and subordinates. They view their subordinates as individuals with unique capacities, innate needs and different backgrounds. They can understand the needs of subordinates and make contact with them to identify and share their joys and grievances. They get connected emotionally with their employees and create a work culture of mutual respect and trust where employees can work efficiently and contact with employers frankly.

Emotional intelligence seems to be applicable to every human interaction in business leadership. It enables a leader to perform his duties perfectly such as staff motivation, hiring new employees, solving work related conflicts and brainstorming to company presentations. It wants a leader to be more aware of his emotions to understand self strengths and weaknesses in acting with team members. It further equips him to handle constructive criticism and learn from mistakes. An emotionally intelligent leader will reveal and expose his emotions to the team members which in turn make them prepared to respond wisely in different situations.

Emotional intelligence shapes an empathetic, energetic and self motivated leader who has compassion and understands employees' emotions. This allows him to get connected with team members and peers to respond genuinely to their concerns and needs. He builds a rapport with peers and strictly attempt to avoid internal conflicts and struggles within organisation through which he collects the respect of subordinates and influence their behaviours.

3.1.13 Emotional Intelligence Competencies:

Emotional intelligence is described as a set of competencies demonstrating the ability one has to recognize, understand and manage emotions, behaviours, impulses and moods in self and others. Thus emotional intelligence is consisted of certain competencies highly correlated with workplace success. These competencies are mainly classified to two types namely, personal competencies and social competencies. These competencies are proven to contribute significantly to workplace results than other cognitive skills and competencies.

The personal competencies refer to the emotional abilities of an individual to recognise and manage emotions in self. The social competencies refer to the emotional capacities of an individual in identifying and regulating the emotions in others. Thus these two types of competencies can be illustrated under the major four domains of emotional intelligence namely, self awareness, social awareness, self management and social management. The personal competencies under emotional intelligence construct involves following skills:

- Emotional self awareness
- Emotional self control
- Conscientiousness
- Accurate self assessment
- Self confidence
- Achievement drive
- Adaptability
- Achievement orientation

- Self control
- Trustworthiness
- Adaptability
- Innovation
- Commitment
- Initiative
- Transparency
- Optimism
- Positive outlook

The social competencies include the following skills:

- Empathy
- Intuition
- Organisational awareness
- Influence
- People development
- Political acumen and social skills
- Coach and mentor
- Customer service orientation
- Leveraging diversity
- Communication
- Leadership
- Conflict management
- Collaboration and cooperation
- Teamwork
- Inspirational leadership
- Relationship management

3.1.14 Emotional Intelligence for Health Sector

Emotional intelligence is believed to be a core competency for healthcare sector. Nowadays there is an increased interest in examining the role of emotional

intelligence in healthcare system and related patient oriented diagnosis activities. Several studies have indicated that behavioural competencies like emotional quotient can influence patient outcomes and healthcare treatments as well as it can bring good results in medical treatment. In healthcare system medical professionals frequently contact with patients suffering from serious and minor ailments and deal with their families and caregivers. Burnout, stress and workload are the usual feature of healthcare sector where doctors and nurses get confronted with grave emotional issues and stress related factors. They have to perform more responsibilities and duties in dealing with patients and giving advanced treatments especially in this era of globalization and modernization. However the evaluations about the possibility of associations between emotional intelligence and healthcare activities is an interesting topic in academic and medical fields because of the social situations healthcare workers have to deal with.

A positive and conducive relationship between caregiver and patient is an indispensable part of good healthcare system. Cooperation, collaboration, empathy and the like emotional factors should get first priority in the healthcare activities. A care giver must be highly scored in emotional intelligence so that he can use his emotional skills to give better emotional care for his patients. An emotionally intelligent care giver is thought to be empathetic and collaborative towards his patients that makes the treatment more effective and meaningful. Thus emotional intelligence including its personal and social competences is an essential ingredient for successful completion of treatment procedures in healthcare systems. An emotionally intelligent healthcare worker can identify his emotions at different situation and will be able to manage it wisely in order to use the collected information for taking appropriate decisions in care giving process. Further he can regulate and control his emotion correctly so that he can avoid unnecessary stresses and confrontations in dealing with abnormal patients. Emotionally intelligent medical professional will also possess ability to recognize, manage and regulate the emotions in patients which is generally termed as others' emotion appraisal of doctors. This ability helps them to assess different emotional feelings of patients with different illness and different backgrounds.

Current healthcare sector is a grave yard of negative emotions and stressful situations. Emotional intelligence has been found to be negatively correlated with psychological distress and depression (Slaski & Cartwright, 2002). It seems reasonable to assume that high emotional intelligence will be associated with better stress management and lower levels of psychological distress (Austin Saklofske & Egan 2004). Persons with high emotional intelligence are more willing to seek professional and non-professional help for personal and emotional problems, depression and suicide ideation (Ciarrochi & Deane, 2001).

Among healthcare workers nurses play a crucial role in the care giving process and require to build a good rapport with patients and to understand their needs in order to provide good quality care. Nurses have to engage in emotional work to foster caring relationships with patients. Emotional intelligence and emotional traits are very valuable factors in building good interpersonal relationships between nurses and patients. There exist plenty of fundamental research works in relation with the role of emotional intelligence in nurses' care giving. The studies mainly conclude that the application of emotional intelligence skills and traits can make the nursing profession more productive and perfect. Keigher (1997) found that there is a lot of anxiety among nurses because of reform, devolution and multiculturalism in hospitals. Problems with social support and adapting to the new environments occur in the nursing profession (Keigher, 1997). It is because of these changes and differences that employees in the health profession are at risk of developing work-related psychological disorders (Boeiji, Nievaard & Casperie, 1996).

Stress, strain, burnout and suicide ideation are some of the most studied fields among personnel in hospitals because nursing is one of the occupations that acquire long hours, low salaries and many responsibilities (Altun, 2002). Altun (2002) further states that it is important that nurses are one hundred percent accurate and efficient when carrying out their daily tasks because they are responsible for promoting and maintaining the health of individuals. Studies have shown that nurses expend much energy coping with problems which arise from the day to day care of

seriously impaired patients (Boeije, et al. 1996). The problems they encounter include the burden of never ending work, having to cope with deviant and problematic behaviour, handling emotional disturbances and on a more abstract level, balancing self interest and power with love and affection (Samuelsson, Gustavsson Petterson, Ametz & Asberg, 1997).

According to Stuart and Paquet (2001), nurses with emotional intelligence cope with stress and manage their stress levels easier. Emotional intelligence enables nurses to prevent burnout and other negative ideations (Stuart & Paquet, 2001). Emotional intelligence is a survival dimension of intelligence and is important for daily functioning and managing of emotions (Stuart & Paquet, 2001). Ashkanasy, Haertel and Daus (2002) found that emotional intelligence is negatively related to burnout. Nurses cope easier with burnout if they have emotional intelligence competencies to manage their stress (Meyer, Fletcher and Parker, 2004).

3.2 Work Engagement

Work engagement is an emerging concept in business management studies. It means a positive, fulfilling, work-related state of mind and has recently gained increasing research interest in the field of occupational health psychology. It's relevance in human resource management practices is being discussed in academic and business scenarios. Its application in organisational functioning for producing optimal results in terms of increased output and quality has been examined by experts and academicians. Generally the term 'Engagement' refers to an intellectual and emotional attachment one has towards his organisation and work and it has been a hot topic of discussion in today's business and non business spheres. This concept is believed to emerge within the organisational psychology and business literature contexts some twenty years ago paving path for development of positive psychology which focus on human strengths and optimal results.

Work Engagement is thought to be a crucial competitive advantage for any business organisation as it leads to higher productivity and lower employee turnover. Today the business and non-business organisations battle each other to invest more

and more in policies and practices that enhance work engagement and other wellbeing factors. It is noteworthy that work engagement of an employee potentially gets translated into better business results for self and organisation and helps in reaping large business outputs. Presently business organisations thrive hard to design and implement new HRM policies and procedures to cultivate effective work engagement culture in their workforce that will foster engagement behaviour at the workplace. Humana resource managers are very interested in leveraging the routine human resource practices such as training, recruitment, performance management and workforce surveys with work engagement programmes. Business consultant and former General Electric CEO Jack Welch have mentioned that work engagement is a best measure of a company's health followed by free cash flow and customer satisfaction.

3.2.1 What Engagement Means?

It is very difficult to precisely explain what the engagement or work engagement means? In the literature there exist various definitions, explanations, models, schools of thoughts and theoretical assumptions in relation with engagement which differs widely in meaning and limiting boundaries. However there is a lack of universal definition and general consensus on what engagement is due to the paucity of academic literature and different authors have defined it from different aspects. Most often it is explained as "emotional and intellectual commitment to the organisation" (Baumruk, 2004; Richman, 2006 and Shaw, 2005). It is "the amount of discretionary effort exhibited by employees in their job" (Frank *et al*, 2004).

Engagement can be understood as a workplace approach highly correlated with positive psychology and having far reach implications for personal and organisational functioning. It is a set of abilities that ensure the commitment of employees towards their personal and organisational goals and values and motivate them to contribute to personal and organisational success. Once employees get engaged in their work and organisation they will be able to enhance their own sense of well-being.

Even though engagement has been defined and understood differently by different authors from various angles and aspects there emerge some common themes on it. These themes mainly explain engagement as satisfaction of an employee with his assigned duty and his pride in his employer. It is the enjoyment and belief of an employee in what they do for their organisation and their perception about how an employer values what they do. The recent developments in engagement literature further views engagement as positive antithesis of burnout and defines as a work related positive state of mind reflecting a person's passion and commitment to the work. According to this view it is a workplace approach that ensures the commitment of employees to the goals and values of organisation and enhances the sense of wellbeing.

Engaged employees are generally believed to be more energetic and enthusiastic. They tend to work proactively even in the negative downward conditions. They will be ready to widen their own thoughts and broaden their horizons of work by acquiring new talents and tackling new challenges. An engaged worker in an organisation finds his assigned task as an interesting one and get energised to fulfil the duties time bounded. They are seen happier at the workplace and develops healthy positive relations with co-workers. They are amazed with job and consider the duty as a part of their life. Research studies conclude that an employee with greater engagement is more likely is to go the extra mile in his duty and deliver excellent on-the-job performance. Software giant Intuit has found that the highly engaged employees are 1.3 times more likely to be high performers than less engaged employees and they are five times less likely to voluntarily leave the company.

3.2.2 Engagement Defined

Engagement is defined and explained differently by different authors from various angles and aspects. There is a lack of universal definition on what engagement exactly refers to due to paucity academic literature. Scholars, academicians and experts in industrial psychology, positive psychology and behavioural sciences have worked hard to develop and modify the theoretical

aspects related with engagement and work engagement that helped in emerging some common themes on it explaining engagement as satisfaction of an employee with his assigned duty. The growing interest in engagement at work couldn't bring a clear consensus on what work engagement means and how to best define and measure it (Albrecht, 2010a; Schaufeli & Bakker, 2010). Furthermore there is clear difference in how researchers and practitioners define and explain engagement. The common fact found in many definitions of engagement is the notion that it is a positive work-related psychological and motivational state of mind that includes a genuine willingness to invest effort in one's work and toward organisational success (Albrecht, 2010a; Christian, Garza, & Slaughter, 2011; Schaufeli & Bakker, 2010; Simpson, 2009). Engagement refers to "the intellectual and emotional commitment to the organisation" (Baumruk 2004, Richman 2006 and Shaw 2005). It is further "an amount of discretionary effort exhibited by employees in their job" (Frank *et al* 2004).

In the academic literature academicians have provided a number of definitions and explanations in relation to engagement. Khan is believed to be the first author to delineate the facets of engagement. He classified engagement to two major types as personal engagement and personal disengagement. Kahn (1990) defined personal engagement as "the harnessing of organisation members' selves to their work roles. In engagement, people employ and express themselves physically, cognitively and emotionally during role performances". Further he advocated personal disengagement as "the uncoupling of selves from work roles. In disengagement, people withdraw and defend themselves physically, cognitively, or emotionally during role performances." Kahn (1990) asserts that "engagement is about being psychologically present while occupying and performing an organisational role".

Rothbard is another notorious scholar to explain engagement in academic sphere. Rothbard (2001) defined engagement as 'psychological presence'. Further he stated that engagement includes two important components, the absorption and attention. Attention is defined as "cognitive availability and the amount of time one

spends thinking about a role" (Rothbard, 2001). Absorption is about "being engrossed in a role and refers to the intensity of one's focus on a role" (Rothbard, 2001).

Maslach and his team are the well-know burnout researchers who define engagement in an absolutely different manner. They viewed and explained engagement as "an opposite or positive antithesis of burnout" (Maslach et al., 2001). Maslach et al. (2001) see the engagement to be affected by involvement, energy, and efficacy that are identified as the opposite sides of the three burnout dimensions namely, exhaustion, cynicism and inefficacy. Studies on engagement and burnout have classified the critical dimensions of burnout as cynicism and exhaustion and of engagement as vigor and dedication. These dimensions are found to be the opposites of each other. Schaufeli et al. (2002) have postulated engagement as a "positive, fulfilling, work-related state of mind that is characterised by vigor, dedication, and absorption". Vigor is the level of energy and mental resilience one experiences at job. Dedication refers to the meaning, inspiration, and positive challenge one gets from his work. Absorption means to be pleasantly engrossed in the tasks to a degree that will ensure over time work.

Engagement is viewed as a two-way relationship between the employee and employer (Robinson *et al.,* 2004). The literature have attempted overtime to relate the engagement with a variety of constructs in behavioural and organisational sciences suchlike organisational citizenship behaviour, organisational commitment and job involvement. May et al. (2004, p. 12) have suggested that "engagement can act as an antecedent to job involvement. Employees who possess high engagement in their works should be more eager for being identified with their roles". Robinson et al. (2004) have stated clearly that engagement contains many of the elements of both commitment and organisational citizenship behaviour (OCB), but is by no means a perfect match with either. In addition, neither commitment nor organisational citizenship behaviour reflect sufficiently two aspects of engagement, its two-way nature, and the extent to which engaged employees are expected to have an element of business awareness.

3.2.3 Types of Engagement

Engagement is an emerging concept widely correlated with many of academic branches such as business management, human resource management, industrial psychology, behavioural sciences, positive psychology and sociology. Several authors of these distinct subjects have attempted to conceptualise engagement at different times which contributed more to the existing literature of engagement and helped to classify it in a meaningful way. Engagement has been classified to several subtypes based on variety of themes like the character of work, organisation and employee get engaged. The main difference among different types of engagement at work is based on what engagement is anchored to? Some believed that it anchored to the work role (Kahn, 1990, 2010); some other pointed to the satisfaction at work, to the work role, and to the organisation and job resources (Harter et al., 2002); while others stressed on activity and positive feelings and experiences at work itself (Maslach & Leiter, 1997; Schaufeli, Salanova, et al., 2002). The major classification of engagement in the literature is as illustrated below:

Personal Engagement: Kahn (1990): the originator of engagement literature has introduced the personal engagement and disengagement. According to Kahn (1990), personal engagement means "the harnessing of organisational members' selves to their work roles" (Kahn, 1990, p. 694). Therefore, engagement describes the self-expression and self employment through which employees bring their personal selves, their real selves, into their work-role performances (Kahn, 1990, 2010). Furthermore, according to Kahn (1990) "in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" (Kahn, 1990, p. 694). Engaged employees thus invest their personal energies in their work and use various degrees of their selves in their work roles, instead of being only physically present at work (Kahn, 1990, 2010).

Work Engagement: This notion of engagement was developed based on the proposal of Schaufeli that engagement is conceptually an independent positive construct negatively related to burnout. From a different viewpoint of positive

perspective, Wilmar Schaufeli and Arnold Bakker (Schaufeli, Salanova, et al., 2002) defines work engagement as a conceptual positive opposite of burnout, but as an independent and distinct construct. According to Schaufeli, Salanova, et al. (2002), work engagement is defined as "a positive, fulfilling, work-related state of mind that is characterised by vigor, dedication, and absorption" (Schaufeli, Salanova, et al. 2002, p. 74). Vigor refers the extent of mental resilience and energy expressed by employees during their work role. It is the interest and persistence showed by them for investing effort in the face of work and difficulties. Dedication is characterised by a sense of significance, enthusiasm, inspiration, pride, and challenge in one's work. Absorption refers to being fully concentrated and deeply engrossed in one's work, and it is characterised by the sense of time passing quickly and difficulty in detaching oneself from work.

Enthusiasm, energy, involvement and commitment to the work and the intensity in th work are the main characteristics of employees engaged in their work. They feel that at work as if time is flying. Furthermore, according to Schaufeli and his colleagues (Schaufeli, Salanova, et al., 2002), work-related well-being have two underlying bipolar dimensions: activation, a continuum from exhaustion to vigor, and identification, a continuum from cynicism to dedication. Thus, vigor and exhaustion, and dedication and cynicism are considered as the endpoints of these dimensions (Schaufeli & Bakker, 2004). Absorption is a unique feature which isn't considered as a positive opposite of reduced professional efficacy. Absorption and reduced professional efficacy are considered as conceptually distinct aspects of work-related well-being rather than endpoints on some underlying continuum. Schaufeli and his colleagues (Schaufeli, Salanova, et al., 2002) advocate work engagement as a conceptual positive opposite to burnout, but not as a exclusive and corresponding opposite. Therefore it is possible occurring burnout and work engagement simultaneously at once. An employee may feel emotionally bursting and drained with high energy during the same week. Further the feeling of burned-out never imply that the employee is engaged in work and the feeling work engagement never imply that the employee is burned-out.

Nevertheless, contrary to the original assumptions of the two underlying bipolar dimensions of work-related well-being (Schaufeli, Salanova, et al., 2002), recent research has revealed that cynicism and dedication represent two opposites of the same continuum, while exhaustion and vigor represent two separate constructs (Demerouti, Mostert, & Bakker, 2010; Mäkikangas, Feldt, Kinnunen, & Tolvanen, 2012; see also González-Romá, Schaufeli, Bakker, & Lloret, 2006). Thus, it seems that employees can hold either positive or negative feelings towards work, but it is possible, though unlikely, that an employee can be to some extent exhausted and vigorous at the same time. Finally, seen as an independent construct, and because the dimensions of work engagement differ from those of burnout, work engagement is operationalised and measured in its own right. The Utrecht Work Engagement Scale (UWES) is based on the definition of work engagement (Schaufeli, Salanova, et al., 2002) and it assesses the three underlying dimensions of vigor, dedication and absorption. The successful operationalisation of work engagement is most likely one of the reasons why work engagement as defined by Schaufeli and his colleagues (Schaufeli, Salanova, et al., 2002) is so widely used in scientific research in many countries in Europe (Schaufeli & Salanova, 2011) and also in some studies outside Europe (Shimazu et al., 2008; Storm & Rothmann, 2003).

Employee Engagement: the construct of employee engagement was developed by Harter et al. (2002) in the Gallup Organisation. They outlined employee engagement as "involvement and satisfaction of employees with the work role and the enthusiasm expressed for work" (Harter et al., 2002). Employee engagement is expected to occur in an organisational situation when "individuals are emotionally connected to others and cognitively vigilant" (Harter et al., 2002, p. 269). Employee engagement is assessed with the Gallup Workplace Audit (GWA; Harter et al., 2002), which consisted an overall satisfaction item and few items to measure employee's perceptions of work characteristics like role clarity, feedback, development opportunities. The Gallup Workplace Audit reflected an employee's satisfaction with the work place, but also processes and conditions that are antecedents to satisfaction and engagement (Harter & Schmidt, 2008). However, the actual state of engagement itself is not assessed (Macey & Schneider, 2008) by

employee engagement. Thus employee engagement in comparison to work engagement is considered as a broader construct that overlaps somewhat with earlier developed attitudinal constructs like job satisfaction (Locke, 1976) and with the later conceptualization of job resources (Demerouti, Bakker, Nachreiner, et al., 2001). However the broad definition of employee engagement is probably one of the reasons why it has received noticeable interest, in particular in the business and consultancy community (e.g., Schaufeli & Salanova, 2011). (Harter, Schmidt, & Hayes, 2002)

Job Engagement: The experts and pioneers of burnout research, Christina Maslach and Michael Leiter (1997) were the first scholars to extend burnout research to include its positive opposite, job engagement also. The classification of engagement as job engagement is based mainly on the theorisation of Maslach that engagement is seen as a direct opposite of burnout (Maslach & Leiter, 1997). According to Maslach and Leiter (1997) job engagement is considered as a direct opposite or antithesis to the chronic stress reaction known as burnout. Thus, according to their conceptualisation job engagement is characterised by the direct opposites of the three burnout dimensions: energy (emotional exhaustion), involvement (cynicism), and efficacy (reduced professional efficacy). Energy to them refers to physical and emotional energy at work. Involvement refers to employees' interest in work and the meaningfulness of work. Efficacy reflects of feelings of successful achievement, competence and accomplishment in one’s work. Engaged employees get ready for dealing difficulties of life and work and develops a sense that is filled with enthusiasm, energy and affection with their work. They consider their work effective and meaningful. The consideration of engagement as an antithesis of burnout made it easy to get assessed by inverse scores on the burnout inventory, the Maslach Burnout Inventory - General Survey (MBIGS; Maslach et al., 1996). Therefore low scores on cynicism and exhaustion, and high scores on professional efficacy are expected to indicate engagement.

Organisational Engagement: Organisational engagement can be viewed as a full scale employee engagement process focusing on the relationship between the

employee and the organisation as well as employer and organisation. The senior managers and leaders who are considered as the visible face of an organisation are responsible for building and communicating the organisational engagement to a large extent. Further employees' belief and trust in senior leadership is one of the critical ingredients of successful organisational engagement. When employees and subordinates believe in senior managers and trust their managerial activities the organisations are more likely to have a higher level of organisational engagement. Dale Carnegie Training's White Paper "Building a Culture of Engagement: The Importance of Senior Leadership" explains how leaders can build a workforce around organisational engagement which gives their company's a competitive advantage. by conducting surveys, feedback, focus groups and development planning at a team or organisation level. Assessment and analysis can be completed by identifying perceptions and expectations of the employees.

Saks (2006) found a distinction between two types of engagement, job engagement and organisation engagement, which he argues are related but distinct constructs. In addition, he argued that the relationships between both job and organisation engagement, and their antecedents and consequences differed in a number of ways, suggesting that the psychological conditions that lead to job and organisation engagement, as well as their consequences are not the same

3.2.4 Models of Engagement

Khan's (1990) Model: One of the most influential studies of engagement was carried out by Kahn (1990) as the concept of engagement is originated from the seminal work of Kahn (1990) who conducted research on camp counsellors and architectural firm employees. Kahn (1990) conceptualized the in and out relationship his participants described as personal engagement and personal disengagement. Personal engagement is defined to be "the harnessing of organisation members' selves to their work roles. In engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" (Kahn, 1990, p. 694). Kahn defined personal disengagement as "the uncoupling of selves from work roles; in disengagement, people withdraw and defend themselves physically,

cognitively, and emotionally during role performances" (Kahn, 1990, p. 694). Kahn argued individuals move back and forth between states of engagement and disengagement based on a number of psychological conditions.

Conceptually, Kahn has begun his work with the work of Goffman (1961) who proposed that, "people's attachment and detachment to their role varies" (Kahn 1990:694). Kahn argued that Goffman's work focused on fleeting face-to-face encounters, while a different concept was needed to fit organisational life, which is "ongoing, emotionally charged, and psychologically complex" (Diamond and Allcorn 1985). Kahn undertook a qualitative study on the psychological conditions of personal engagement and disengagement by interviewing summer camp counsellors and staff at an architecture firm about their moments of engagement and disengagement at work. He defined disengagement as the decoupling of the self within the role, involving the individual withdrawing and defending themselves during role performances (May *et al* 2004). Disengaged employees displayed incomplete role performances and were effortless, automatic or robotic (Kahn 1990).

Kahn found that there were three psychological conditions related with engagement or disengagement which are meaningfulness, safety, and availability. He argued that people asks themselves three fundamental questions in each role situation: (a) what is the importance level for bringing myself into this performance (b) what is the degree of safety in doing so; (c) and finally how can I be available for doing so. He found that workers were more engaged at work in situations that offer them more psychological meaningfulness and psychological safety and when they are more psychologically available. May and his colleagues conducted an empirical study to test the validity of Kahn's 1990 model. They concluded that availability, meaningfulness and safety are significantly correlated with engagement (May *et al*, 2004).

Maslach Model of Burnout: An alternative model of engagement comes from the literature of 'burnout'. It illustrates job engagement as "the positive antithesis of burnout, noting that burnout involves the erosion of engagement with one's job" (Maslach *et al* 2001). According to them, six areas of work-life cause for either

burnout and engagement which are rewards, workload, control, rewards and recognition, perceived fairness, community and social support and values. They argue that job engagement is associated with a sustainable workload, feelings of choice and control, appropriate recognition and reward, a supportive work community, fairness and justice, and meaningful and valued work. Like burnout, engagement is expected to mediate the link between these six work-life factors and various work outcomes. May *et al's* (2004) findings support Maslach *et al's* (2001) notion of meaningful and valued work being associated with engagement, and therefore it is important to consider the concept of 'meaning'.

Earlier Maslach and Leiter (1997) have proposed an alternative approach to Khan's model by comparing the concept with burnout. They described burnout as consisting of three key elements that include exhaustion, cynicism, and inefficacy. The researchers argued that engagement is identified by efficacy, energy and involvement which are the opposite sides of burnout.

Rothbard Model of Engagement: The Rothbard (2001) model of engagement is largely influenced by the work of Kahn (1990). Even though, it takes a different perspective on the concept. Rothbard (2001) defined engagement as "a psychological presence that involves two critical components as attention and absorption". Attention refers to "cognitive availability and the amount of time one spends thinking about a role (Rothbard, 2001)". Absorption refers to "being engrossed in a role and the intensity of one's focus on a work role". Thus Rothbard developed her model based on multiple roles of family and work. She argued that the concepts of attention and absorption have distinct characteristics although they are similar.

Schaufeli and Bakker Model of Work Engagement: The concept of engagement developed by Schaufeli and Bakker (2004) is arguably the most widely accepted construct in academia. Schaufeli and Bakker defined engagement as, "a positive, fulfilling, work-related state of mind that is characterised by vigor, dedication and absorption" (Schaufeli & Bakker, 2004 p. 4-5). Vigor refers to an individual's level of energy, how willing they are to invest themselves in their work, having resilience

and not easily fatigued, and the ability to deal persistently with difficult situations. Dedication has similarities to Kahn's (1990) notion of meaningfulness in which an individual feels a sense of significance in their work that they are not only proud of, but also enthusiastic to pursue. A person high in dedication also finds their work challenging and inspiring. Absorption is characterised by how immersed an individual is in their work. Schaufeli and Bakker (2004) further divided engagement into two concepts of employee engagement and work engagement. The researchers argued that work engagement is described by the relationship one has with his work and employee engagement by the relationship one has with the organisation.

3.2.5 Developmental History of Work Engagement

Kahn's (1990) conceptual foundation for *personal engagement* is commonly believed as the starting point for work engagement research. He was considered as the originator of engagement literature when introduced the concepts of personal engagement and personal disengagement, Personal engagement refers to simultaneous self-employment and self-expression in work actions and to be active in full role work performances. In particular, Kahn defines personal engagement as "submitting of organisational members' selves to their work roles" Kahn (1990). Therefore, engagement describes the self-expression and self employment through which employees bring their personal selves, their real selves, into their work role performances (Kahn, 1990, 2010). Furthermore, Kahn (1990, p. 694) thinks that "people who are engaged will be ready to employ and express themselves physically, cognitively, and emotionally during role performances". Employees who are highly engaged invest their personal energies in their work and use various degrees of their selves in their work roles, instead of being only physically present at work (Kahn, 1990, 2010).

Khan (1990) defines personal engagement and personal disengagement as ''the behaviours by which people bring in or leave out their personal selves during work role performances'' (p. 694). Kahn (1990) proposes that engagement will trigger the psychological and physical presence of employees while they occupy and perform for an organisational role. Kahn (1990) also assumes that particular

psychological conditions need to be met in order to be personally engaged at work: meaningfulness (e.g., the feeling that investment of the self is worthwhile and valuable), safety (e.g., the feeling that it is safe to show and employ one's self without negative consequences), and availability (e.g., the feeling that one is capable of investing personal energies into work). Although Kahn (1990) presented a complete theoretical model of personal engagement, he was unable to offer an operationalisation of the concept. This might has been the reason why personal engagement has received only limited research interest. Nevertheless, Kahn's conceptual foundation has inspired many researchers, who have presented different engagement operationalisations based on Kahn's work (May, Gilson, & Harter, 2004; Rothbard, 2001; Saks, 2006; Schaufeli, Salanova, et al., 2002).

3.2.6 Work Engagement and Burnout

Work engagement includes mainly three components namely vigor, dedication and absorption. Vigor refers to the high level of energy and mental resilience in the work. It is the desire to invest more effort in a particular work and the persistence in the face of difficulties. Dedication is characterised by the strong involvement in one's work and the experience of sense of inspiration, significance, enthusiasm, challenge and pride. Absorption refers to the full concentration and engrossment in one's work where the employees get difficulties in detaching from their work. The vigor and dedication components of work engagement are considered as the direct opposites of exhaustion and cynicism respectively, the core two symptoms of burnout (Maslach et al., 2001). The continuum spanned by vigor and exhaustion has been labelled "energy" whereas the continuum spanned by dedication and cynicism has been labelled "identification" (Schaufeli & Bakker, 2001). Thus work engagement involves high levels of energy and strong identification with one's work whereas burnout includes a low level of energy and poor identification with one's work. The third component of work engagement model, absorption, has no any direct opposite in the burnout model for two valid reasons. Firstly the professional efficacy component of burnout plays a meagre and less prominent role in burnout in opposite to exhaustion and cynicism. The

exhaustion and cynicism are seen more strongly correlated each other compared to self efficacy which scantly correlated with other two burnout dimensions. Furthermore, the exhaustion and cynicism are particularly related to job demands, such as time pressure and role problems, whereas inefficacy is typically related to lacking of job resources, such as performance feedback and social support (cf. Lee & Ashforth, 1996). Secondly the interviews and discussions with various supervisors and employees revealed that work engagement characterised more by immersion and engrossment of employees in their work rather than the efficacy. This relationship can be tabulated as given in table 3.4.

Table 3.4

Work Engagement and Burnout

Components of Burnout	Components of Work Engagement
Exhaustion	Vigor
cynicism	Dedication
Lack of Professional Efficacy	Absorption

3.2.7 Work Engagement in Healthcare Sector

The negative work aspects such as work stress, burnout, fatigue, employee turnover are intrinsic to any duty in healthcare and nursing. These work aspects tend to negatively affect healthcare providers' health and well-being. Healthcare professionals who face severe stress related problems frequently report job dissatisfaction, physical complaints, burn out and intention to quit the job. To a large extent, the introduction of the new wellbeing concepts like work engagement under the branches of positive psychology, occupational health psychology and wellbeing studies is considered as a solution for these healthcare difficulties. Nowadays an increased attention has been paid to the positive psychology and related subjects that means the scientific study of human strength and optimal functioning. Work engagement is one of the positive states in positive psychology and is considered as the antipode of burnout. It provides more enthusiastic work culture and promotes

employee motivation where employees work with high levels of energy and strong identification of work. Healthcare providers who are engaged in their work get motivated and express maximum levels of vigor, dedication and absorption.

The studies addressing the relationship between work engagement and subjectively rated physical health have found an association between work engagement and fewer psychosomatic health complaints or health problems, such as headache, stomach ache and back pain (e.g., Demerouti, Bakker, De Jonge, et al., 2001; Schaufeli & Bakker, 2004; Shimazu et al., 2008). Furthermore, a few studies have found relationships with positive health indicators, such as self-rated health (Hakanen et al., 2006) and work ability (Airila et al., 2012; Hakanen et al., 2006). In addition, two previous longitudinal studies showed that work engagement predicted reduced sickness absences over a one-year period (Schaufeli et al., 2009) and reduced depressive symptoms over a seven-year period (Hakanen & Schaufeli, 2012).

The theoretical rationale for the beneficial relationship between work engagement and physical health can be found in the optimal functioning of the two main psycho-physiological (stress) systems: the autonomic nervous system (ANS) and the hypothalamic-pituitary-adrenal (HPA) axis (e.g., Brownley, Hurwitz, & Schneiderman, 2000; Guyton & Hall, 2000; Lovallo & Thomas, 2000). These two systems have crucial roles in mediating the associations between any psychological (work-related) states and physiological outcomes. In addition, considerable evidence exists that prolonged work-related stress and burnout (i.e., the conceptual negative opposite of work engagement) are linked to physical ill-health, especially to cardiac diseases and cardiovascular-related events, via deregulations in the functions of ANS and HPA (for reviews, see, Belkic, Landsbergis, Schnall, & Baker, 2004; Melamed, Shirom, Toker, Berliner, & Shapira, 2006). It thus seems plausible that the optimal functioning of these same psycho-physiological systems would mediate the relationship between work engagement and physical health. However, previous studies have not been able to find the expected beneficial associations between work engagement and the functioning of ANS and/or HPA (Langelaan, Bakker, Schaufeli,

et al., 2006; Van Doornen et al., 2009). Therefore, evidence for the psycho-physiological mechanism underlying the relationship between work engagement and health remains unclear, and consequently merits further research.

3.2.8 Relevance of Work Engagement

Work engagement is a positive aspect of mind and a fulfilling state that is related work. It has recently gained increasing research interest and relevance in the field of occupational health psychology and positive psychology. The relevance of work engagement concept in business practices especially in HRM procedures is clearly proved by valid studies and researches. This interest in work engagement is linked with the emergence of so-called positive psychology at the beginning of the millennium (Seligman, 2002; Seligman & Csikszentmihalyi, 2000). The field of positive psychology generally discusses the topics related with human strengths, health and well-being, and optimal functioning. It is obvious that positive psychology lags behind in number of constructs and measures indicating the lack of literature related with positive wellbeing at work. Work engagement is understood as the only one major construct to fill this research lacuna and behavioural science scholars are showing increased interest in developing and conceptualizing the theoretical models related with this construct. This trend probably has led to the translation of Utrecht Work Engagement Scale (UWES), the scale that assesses work engagement (Schaufeli, Salanova, González-Romá, & Bakker, 2002) into several languages and occupational groups in different countries.

The development of work engagement concept is regarded as a recent advancement in occupational health psychology which contributes profoundly to the innovation of human resource management policies. Work engagement becomes most favoured psychological concept in human resource management since the organisations consider their workers as most valuable asset and is verily interested in their health and wellbeing. Work engagement further plays an important role in bridging the gap that exist between human resource management and occupational health psychology linking the two domains for better practice of human resource policies. The introduction of the concept of work engagement has elucidated many

implications for individuals and organisations in relation with its application in human resource management and occupational health psychology. It enables a shift from traditional negative approach of sickness and un-wellbeing to a more positive approach of wellbeing and good health.

Work engagement is a crucial factor in business world for gaining better results in terms of increased output, customer satisfaction, less absenteeism and burnout and cordial workplace relationships. Work engagement is found to be correlated with many positive consequences for both individual and organisation that will result in better psychosomatic and physical health. Besides scientific research, engagement is also very popular in the business and consultancy fields (e.g., Albrecht, 2010a; Macey & Schneider, 2008; Schaufeli & Bakker, 2010). However, the definitions and measures of engagement used among practitioners are usually based on practice, rather than on scientific evidence reported in peer-reviewed journals (e.g., Schaufeli & Bakker, 2010).

3.2.9 Work Engagement Measurement

Work engagement is the direct antipode of burnout. Apart from burned out employees engaged employees could keep a sense of energetic and effective relationship with their colleagues and consider them as able to deal with the requirements of job. Since the inception of work engagement conceptualisation scholars have attempted to develop appropriate scales and measurement tools to assess the work engagement level in various organisational backgrounds. Most of the assessment tools of engagement are related with burnout literature and Utrecht Work Engagement Scale (UWES), a self-report questionnaire developed by Schaufeli and his colleagues is considered as the best available measuring tool in work engagement.

UWES is a scientifically verified and validated self-report questionnaire developed by Schaufeli and his colleagues. This scale was developed based on the prominent school of thought with regard to the definition of work engagement. Engagement refers to a continuous and pervasive emotional and cognitive state that doesn’t focus on any kind of object, individual, event or behaviour. Vigor refers the

extent of mental resilience and energy expressed by employees during their work role. It is the interest and persistence showed by them for investing effort in the face of work and difficulties. Dedication means the strong involvement of an employee in his work and feeling of significance, pride, enthusiasm and inspiration. The third dimension absorption refers the engrossment and happily concentration of employee in their assigned duties. They feel as time passes speedily and never detach from their work roles. Accordingly, vigor and dedication are considered direct opposites of the core burnout dimensions of exhaustion and cynicism, respectively (Maslach, Schaufeli, & Leiter, 2001). Therefore, particularly the correlations between vigor and exhaustion and between dedication and cynicism are expected to be strongly negative. The remaining dimensions of burnout (i.e., professional efficacy) and of work engagement (i.e., absorption) are distinct aspects that are not considered as opposites.

Thus this scale constitutes three dimensions of work engagement: vigor, dedication, and absorption. Originally, the UWES included 24 items, but after psychometric evaluation, seven unsound items were eliminated so that three scales, totalling 17 items, remained (Schaufeli, Salanova, et al., 2002): Vigor (VI, 6 items), Dedication (DE, 5 items), and Absorption (AB, 6 items) scales (see the appendix). The original UWES-17 has encouraging psychometric features for its scores. For instance, internal consistencies (Cronbach's alpha) typically range between .80 and .90 (Demerouti, Bakker, Janssen, & Schaufeli, 2001; Durán, Extremera, & Rey, 2004; Montgomery, Peeters, Schaufeli, & Den Ouden, 2003; Salanova, Schaufeli, Llorens, Peiró, & Grau, 2001; Schaufeli & Bakker, 2004). Thus, values of Cronbach's alpha exceed the value of .70 that is traditionally used as a rule of thumb (Nunnally & Bernstein, 1994), and even more so, in almost all cases, alpha satisfies the more stringent value of .80 that is now considered a generally accepted standard (Henson, 2001).

The vigor component of this scale is assessed by six items that refer to peak level of energy, the interest in exerting effort, not being easily fatigued, and patience in the face of difficulties. The items include:

- At my work, I feel bursting with energy
- At my job, I feel strong and vigorous
- I feel like going to work when I get up in the morning,
- I can work for a very long time
- At my job, I am very resilient, mentally
- I always persevere at my work, even when things aren't well

The dedication component is assessed by five items that refer to deriving a sense of significance from one's work, feeling enthusiastic and proud about one's job, and feeling inspired and challenged by it which includes the following items:

- I do the work that that I find full of purpose and meaning
- I am enthusiastic about my job
- My job inspires me
- I am proud on the work that I do
- To me, my job is challenging

Absorption is measured by six items that refer to being totally and happily immersed in one's work and having difficulties detaching oneself from it so that time passes quickly and one forgets everything else that is around.

- Time flies when I'm working
- When I am working, I forget everything else around me
- I feel happy when I am working intensely
- I am immersed in my work
- I feel as carried away during the work
- To detach myself from the job is very difficult

The employees who score high on vigor dimension is seemed to have more energy, stamina and zest while working and employees who score low on vigor is thought to have less energy, zest and stamina. The high score in dedication dimension implies the strong identification of employees with their work with a feeling of enthusiasm and proud about the work while the low score implies the less

identification with no experiencing the meaningfulness. Those who score high on absorption will feel that they are happily engrossed in their work, immersed by their work and have difficulties detaching from the work. On other hand employees with low score on absorption do not feel immersed in the job and can detach themselves from the work.

3.2.10 Work Engagement and Organisational Commitment

Organisational commitment and work engagement are two closely related but distinct constructs having little similarities and a wide range of disparities. Organisational commitment differs from engagement in the sense that commitment is merely a person's attachment or attitude towards his organisation while work engagement is seemed to be a work-related, domain-specific and positive state of mind. Organisational commitment means the identification of an employee with the organisation and the duty he perform, his desire to continue actively participating in his organisation and his willingness to remain with the organisation for future period. It refers to a context-free dispositional trait. On the other hand work engagement is not an attitude like organisational commitment. It is simply the degree of the attention and absorption an employee exhibits in the performance of his work role. While organisational commitment involves the identification of an employee with his organisation and willingness to stay there the engagement focuses strictly on the role performance that is formal and not on voluntary attitude or extra role. In addition engagement is a broader concept than work engagement as it encompasses energy and absorption too. However engagement has to do a lot with how an individual employs himself in the performance of his duty and it involves the active use of emotions and behaviours in addition to cognitions.

Organisational commitment and work engagement are thus conceptually closely related constructs. Further organisational commitment is very closely related to the dedication dimension of work engagement. The dedication dimension describes a strong emotional connection to and involvement in work such like enthusiasm and the sense of significance (Schaufeli & Bakker, 2010; Schaufeli, Salanova, et al., 2002). The main difference between organisational commitment

and dedication is that dedication generally refers to work while organisational commitment refers to the organisation. Many scholars have undertaken serious research studies to examine the relationships and differences between work engagement and organisational commitment. The results and conclusion of the studies have yielded somewhat contradictory results. However the studies have indicated a moderate overlap between work engagement and organisational commitment ($p = .59$). According to a previous study the work engagement, job involvement and organisational are three empirically different constructs that reflect different aspects of work attachment, sharing only between 12% and 21% of the variance (Hallberg & Schaufeli, 2006).

3.3 Organisational Commitment

Organisational commitment is a leading behavioural topic in the field of organisational behaviour and organisational and industrial psychology. It has become a very popular topic of investigation in human resource management. It can be defined as the degree or level to which an employee identifies him with the organisation and wants to continue actively participating in it. It reflects the employees' belief in the mission and goals of the firm, willingness to expend effort in their accomplishment, and intentions to continue working there. It refers to an employee's psychological attachment towards his organisation, identification of and employee with particular organisation, a strong belief and involvement in the goals and values of organisation, willingness to invest more effort and a desire to keep membership of organisation. Thus commitment means mental feelings of obligation or emotional attachment towards an organisation, work, institution, process etc. Organisational commitment is found to predict many work related variables and outcomes like organisational citizenship behaviour, job performance, turnover and empowerment. Initially commitment was thought as a single dimension construct but for last few years it is viewed academically as a multidimensional construct and a growing consensus has been developed in this regard.

Organisational commitment is being highly discussed in the academic sphere over the last years and has advanced as a topic of interest in human resource

management and industrial psychology. The new vistas of insights in relation to commitment are being discovered through vibrant studies and researches under variety of disciplines in different settings. The conceptualisation and development of new approaches in this area is in its full swing and various human resources practices are getting introduced to increase the commitment of employees. Today organisational commitment is viewed as a business necessity and organisations are careful in preparing necessary arrangements in HRM policies and practices to include commitment related programmes.

Scholars and researchers in organisational studies have attempted to define this multidimensional construct from different perspectives and various measurement models and scales have been developed at different time periods and cultural settings. The most notable and exemplary work in this field is the organisational commitment model developed by Meyer and Allen integrating the existing models and definitions in the literature under three components namely, affective commitment, continuance commitment and normative commitment.

3.3.1 Nature and Definition of Commitment

Commitment generally refers to the psychological attachment of an employee towards his organisation which included affective, emotional and obligatory aspects. Commitment has been defined and explained from different angles and perspectives based on the theoretical conceptualisation of different authors. Newstrom and Davies (2002:211) have rightly defined employee commitment as "the degree to which an employee identifies with the organisation and wants to continue actively participating in it". It is a measure of the employees' willingness to remain with an organisation in the future just like a strong magnetic force attracts one metallic object to another. It reflects the employees' belief in the mission and goals of the organisation, willingness to expend effort in their accomplishment, and intentions to continue working there. Naturally the commitment level of employees having longer tenure and experience is believed to be stronger as they experience a successful work role along with a committed workforce. Mowday, Porter and Steers (1979) have suggested that the processes

related to organisational commitment have important implications for employees, organisations, and society as a whole. The importance of this construct has increased together with recognition of its influence on employee attitudes and behaviours and business management.

The term 'commitment' can be explained in many ways. According to Becker (1960), there exist some definitions of organisational commitment which describe the concept of commitment as "consistent lines of activity". Mullins (1999:812) has suggested three processes or stages of commitment. The first stage is compliance where a person accepts the influence of others mainly to obtain something from others, such as pay. Compliance is followed by Identification where an individual accepts influence to maintain a satisfying relationship and to feel pride in belonging to the organisation. The final stage is Internalisation where the individual finds the values of the organisation to be intrinsically rewarding and compatible with the personal values. Organisational commitment is mainly a psychological or emotional bond with the organisation that influences employees to act in consistent lines with the interests of organisation. Meyer and Herscovitch (2001), state that commitment is "a force that binds an individual to a course of action of relevance to one or more targets" (Herscovitch, 2001). Further the commitment can be viewed as an attitude about employees' loyalty to the organisation or an ongoing process through which the participants in organisation express their concern for the organisation and its continued success and well-being.

Scholl, (1981) defines commitment as "a stabilizing force that acts to maintain behavioural direction when expectancy/equity conditions are not met and do not function". According to Brickman, (1987) it is "a force that stabilizes individual behaviour under circumstances where the individual would otherwise be tempted to change that behaviour". Brown, (1996) goes further and defines as "an obliging force which requires that the person honour the commitment, even in the face of fluctuating attitudes and whims". Mowday et al. was precise to illustrate commitment as "relative strength of an individual in identifying with and involving in a particular organisation" (Mowday et al., 1979). To O'Reilly & Chatman, (1986)

it is “a psychological attachment felt by the person for the organisation” (O’Reilly & Chatman, 1986). “it will reflect the degree to which the individual internalises or adopts characteristics or perspectives of the organisation” (O’Reilly & Chatman, 1986). Allen & Meyer, (1990) have explained it as “a psychological state that binds the individual to the organisation”.

Committed employees believe and accept organisational values and goals. They feel willing to remain within their organisations and provide valuable effort on their behalf. Researchers suppose that committed workers make a contribution to the organisation in terms of motivation (Johnson et al., 2010; De Silva and Yamao, 2006; Pool and Pool, 2007; Eby et al., 1999). Many studies have concluded that organisational commitment levels are highly correlated with many constructs like satisfaction (Mathieu and Zajac, 1990; Pool and Pool, 2007; Yang and Chang, 2008), performance (Chong and Eggleton, 2007; Shaw et al., 2003; Wong and Law, 2002) and work motivation (Johnson t al., 2010; Meyer et al., 2004; Curtis et al., 2009; Eby et al., 1999). Pool and Pool (2007) have opined that organisational commitment can create a business environment that will be helpful in promoting motivation at the workplace. Commitment research has shown that it is quite strongly related to several important organisational consequences such as absenteeism, turnover, intention to search for other jobs and to leave the organisation (e.g. Allen & Meyer, 1996; Somers & Casal, 1994; Tett & Meyer, 1993), and to a lesser degree to performance measures (e.g. Larson & Fukami, 1984; but see Meyer & Allen, 1997; Randall, Fedor, & Longenecker, 1990).

According to Madigan, Norton and Testa (1999:03), committed employees would work diligently, conscientiously, provide value, promote the organisation’s services or products and seek continuous improvement. In exchange, they expect a work environment that fosters growth and empowerment, allows for a better balance of personal and work life, provides the necessary resources to satisfy the needs of customers and provides for their education and training as well as that of their co-workers. Martins and Nicholls in Mullins (1999:813) view commitment as encapsulating by giving all of you while at work. This commitment entails things as

using time constructively, attention to detail, making that extra effort, accepting change, co-operation with others, self development, respecting trust, pride in abilities, seeking improvements and giving loyal support.

3.3.2 Strategies for Increasing Commitment

There are many strategies and methods that will help in building employee commitment in an organisation. Employers often fail in realising and implementing these strategies in human resource practices and cause for losing some of the most effective things they can do to develop and sustain motivated and committed employees in their organisation. Nelson (1999:01) has proposed five strategic keys to develop employee commitment in an organisation. These five keys can be abbreviated as five 'I's that include:

Interesting Work: Nobody wants to do the same boring job over and over, day after day. Moreover, any job usually involves some boring and repetitive tasks. The authority should be aware of this fact and make necessary arrangements to make the task interesting and funny. Organisations have to ensure that each employee feel at least a part of their job be of high interest to them.

Information: Information is power and key for authority in any organisation. Employees regularly want to get empowered with the information they need to know to do their jobs more effectively. Employees want to know how they are performing in their jobs and how the company is doing in the marketplace. The open channels of communication in an organisation provide employees with necessary information related with their tasks and organisation. Theses channels help them ask questions, and share information vertically and horizontally.

Involvement: The involvement of employees in decision making process is considered as key factor in ensuring the employee commitment in an organisation. The top leaders and managers in any business organisation frequently face with a large number of grave problems that need speedy solutions. Meanwhile the amount of time availed for decision making process continue to decrease due to the dramatically increase in the routine business activities. To involve employees in

decision making process directly or indirectly have been very indispensable for top management to find a practical solution for this complex issue. Generally employees who are closest to the organisational problems typically have the best insight as to find appropriate solution instantly. This involvement strategy in turn leads to the increased commitment and easiness in implementing new ideas and strategies.

Independence: Flexibility, independence and freedom to perform are the most favoured factors to an employee in any organisational setting. No employees like their every action get closely monitored and controlled by managers and supervisors rather they appreciate having the flexibility in performing their tasks as they prefer. The regulatory procedures get detrimental for organisational success if it goes beyond a certain limit causing annoyance and intimidation for employees. Developing a culture of flexibility and freedom at workplace reportedly leads to increased outputs and better outcomes. The flexibility increases the chance of better performance in terms of increased morale and enhanced commitment and brings an additional initiative and energy in their jobs.

Increased Visibility: Self esteem is the highly notable factor every organisation ought to integrate with their HRM policies. Employees want to get increased visibility and appreciation for what they do. Supervisors are advised to create regular occasions to share and appreciate the efforts exerted by employees in uplifting the status of organisation. Giving visibility and sharing with others is a limitless action from the part of authority and makes far reach impact in increasing the morale of employees. It gives employees new opportunities to perform, learn and grow and generates a committed work force within the organisational boundaries.

Madigan *et al*. (1999: 3) provide some practical strategies that organisations can use to increase the employee commitment. They firstly propose that, in order for an organisation to increase the commitment levels of its employees, it has to recognise the fundamental need of the employee to maintain a work-life balance. A serious consideration should be given to the recognition of personal and family life. Organisations might consider the implementation of such practices as: flexible work schedules, job-share arrangements, personal time-off programmes, work from home

arrangements, reduced work weeks and training programmes that better affect the balance between personal life and work life.

Mullins (1999:815) concludes that a high level of employee commitment implies willingness to work for the organisation's benefit: but that its continuation depends on the reciprocal commitment by the organisation to its members. In the current industrial scenario the concern is only for producing goods or services. This outlook might be changed to include strategies for the encouragement of innovative, exploratory and creative ideas in organisation that will go beyond limits prescribed for the job. These cut-throat objectives can be achieved only if managers consider with almost care exactly what types of commitment they are stepping to and design practices and policies accordingly.

3.3.3 What Organisational Commitment Means?

Organisational commitment refers to employees' loyalty to the organisation, their willingness to work on behalf of the organisation, degree of their goal and value congruency with the organisation and their desire to maintain membership. It is an employee's psychological attachment towards his organisation, identification of and employee with particular organisation, a strong belief and involvement in the goals and values of organisation, willingness to invest more effort and a desire to keep membership of organisation. The early researches and studies on the organisational commitment date back to the 1960s. Pareek (2004:165) defines organisational commitment as a person's feeling with regard to continuing his or her association with the organisation, acceptance of the values and goals of the organisation, and willingness to help the organisation achieve such goals and values.

Luthans (1995) explains organisational commitment as an attitude whereby it is defined as "a strong desire to remain a member of a particular organisation; a interest to invest high levels of effort for the sake of the organisation; and a definite belief in and acceptance of the values and goals of the organisation". Organisational commitment is found to be empirically related to economical concepts like job performance (Mowday, Porter, & Dubin, 1974; Steers, 1977), absenteeism (Sagie, 1998), turnover intentions and cognitions (e.g., Angle & Perry, 1981; Porter, Steers,

Mowday, & Boulian, 1974), job satisfaction (Bluedorn, 1982; Eby, Freeman, Rush & Lance, 1999; Tett & Meyer, 1993) and to more recently developed psychological constructs like organisational citizenship (O'Reilly & Chatman, 1986; Shore & Wayne, 1993). Research studies conducted on commitment have shown that highly committed employees will engage in organisational citizen behaviour. This will result in a better performance and better work performance that may be beneficial to the organisation (Chang et al., 2007).

Mathieu and Zajac (1990) undertook a meta-analysis to investigate whether organisational commitment can consistently and strongly predict attendance and lateness and correlate negatively with turnover, the intention to search for job alternatives and to leave one's job. The results showed the prediction and correlation implying that there is convergent evidence that employees with low organisational commitment tend to leave the organisation more quickly as compared to employees with a high organisational commitment. Further the committed employees, to a lesser extent are willing to invest more effort on behalf of their organisation as opposed with uncommitted employees. It is very clear from the literature that the employees with high organisational commitment are highly productive and satisfied with their work and organisation. Moreover they are highly responsible with high civic virtue ensuring the provision of adequate quality of organisational services. The organisational commitment attitude is determined by a number of personal and organisational variables. The personal factors include variables such like age, tenure in organisation, positive or negative affectivity, internal or external control and attributions. The organisational variables consist of the job design and leadership style of supervisor.

3.3.4 Models of Organisational Commitment

A number of alternative models for organisational commitment were explored in the 1980s and early 1990s (Wasti, 2004). There exist several multidimensional models and frameworks of organisational commitment. Several scholars in different disciplines have presented different types of models in commitment with varieties of components. Value commitment, compliance,

identification, alienative, value and moral are some important components of commitment discussed in these models. The difference between these models stems largely from different motives and strategies involved in their development.

Among these models the most prominent and popular one is the organisational commitment model developed by Allen and Meyer which is considered as the dominant one in the commitment literature till the date. In an attempt to synthesize the organisational commitment research Allen and Meyer (1990) and Meyer and Allen (1991) analysed an extensive amount of commitment literature. In both reviews they defined organisational commitment as "a psychological state that characterises the relationship that the employee has with the organisation" (Allen and Meyer, 1990). It may be a relationship that influences the decision of the employee to stay or leave the organisation. They further conceptualized a model of commitment with three distinguishable components as affective, continuance and normative.

The first component, Affective Commitment involves the emotional attachment of an employee to his organisation. It is his identification and involvement in the organisation. Employees that are strong affective committed want to stay employed in the organisation. The second component, continuance commitment refers to perceived costs when the employee would leave the organisation and involves commitment attached with costs of losses that is related with leaving certain organisation. Employees with this kind of commitment stay employed in the organisation because they need to be. The third component, normative commitment involves the employees' feelings of obligation to stay within the organisation. It concerns a perceived obligation to stay with the organisation. Employees that are strong normative committed stay in the organisation because they believe they ought to.

Angle and Perry (1981) have developed of commitment which includes value commitment (commitment to support the goals of the organisation and commitment to stay (commitment to retain their organisational membership). O'Reilly and Chatman (1986) modified a model of commitment with Compliance,

Identification and Internalization as components where Compliance means instrumental involvement for specific extrinsic rewards, Identification means attachment based on a desire for affiliation with the organisation and Internalization means involvement predicated on congruence between individual and organisational values.

Penley and Gould (1988) developed a model of commitment consisting Moral (Acceptance of and identification with organisational goals), Calculative (a commitment to an organisation which is based on the employee's receiving inducements to match contributions) and Alienative (organisational attachment which results when an employee no longer perceives that there are rewards commensurate with investments; yet he remains due to environmental pressures). Mayer and Schoorman (1992) developed a model with 'value' than includes the acceptance of organisational goals and values and the interest to invest more effort for the sake of organisation and 'continuance' that involves the desire to remain as a member of the organisation as components.

Jaros et al (1993) propounded a model with Affective (the degree to which an individual is psychologically attached to an organisation through feelings such as loyalty, affection, warmth, belongingness, pleasure, etc.), Continuance (the degree to which an individual experiences a sense of being locked in place because of the high costs of leaving) and Moral (the degree to which an individual is psychologically attached to an organisation through internalization of its goals, values and missions) as the components. Any way the model developed by Meyer and Allen have generated the most research and best explains commitment in terms of organisational behaviour.

Based on case studies that focused on employee commitment of 14 British companies, including Jaguar, Royal Bank of Scotland, British Steel, Pilkington's, Rothmans, Raleigh, and Schweppes, Martin and Nicholls formulated a model of commitment based on three major pillars, each with three factors. These pillars are: *(I) a sense of belonging to the organisation.* This builds upon the loyalty essential to successful industrial relations. The sense of belonging is created by managers

through ensuring the workforce is informed, involved and sharing in success. *(II) A sense of excitement in the job.* Improved results will not be achieved unless workers can also feel a sense of excitement about their work which results in the motivation to perform well. This sense of excitement can be achieved by appealing to the higher-level needs of pride, trust and accountability for results. *(III) Confidence in management.* The senses of belonging and excitement can be frustrated if workers do not have respect for, and confidence in, management leadership. This respect is enhanced through attention to authority, dedication and competence. A large measure of the success of the companies studied derives from their management of people and from creating a climate for commitment. For example: .if people feel trusted, they will make extraordinary efforts to show the trust to be warranted. However, creating commitment is hard. It takes time, the path is not always smooth and it requires dedicated managers (Mullins, 1999:813).

3.3.5 Outcomes of Organisational Commitment

Several research studies conducted in different countries have revealed many antecedents, precedents and outcomes of organisational commitment which have far reach implications for business and non business organisations. According to the results of the studies committed employees of an organisation are found to accept organisational values and goals. They are ready to remain within their organisations forever and are willing to provide considerable effort on their behalf for the better results in organisational activities. Committed workers contribute to the organisation in terms of motivation, satisfaction, work motivation and other wide range of organisational outcomes. It is strongly related to several important organisational consequences such as absenteeism, turnover, and intention to search for other jobs and to leave the organisation. It further helps in creating and developing an attitude towards employees' loyalty to their organisation and is an ongoing process through which the members of an organisation demonstrate their participation in the organisation and their continued success and wellbeing.

Many studies suppose that committed workers make a contribution to the organisation in terms of motivation (Johnson et al., 2010; De Silva and Yamao,

2006; Pool and Pool, 2007; Eby et al., 1999). Many studies have concluded that organisational commitment levels are highly correlated with many constructs like satisfaction (Mathieu and Zajac, 1990; Pool and Pool, 2007; Yang and Chang, 2008), performance (Chong and Eggleton, 2007; Shaw et al., 2003; Wong and Law, 2002) and work motivation (Johnson t al., 2010; Meyer et al., 2004; Curtis et al., 2009; Eby et al., 1999). Pool and Pool (2007) have opined that organisational commitment can create a business environment that will be helpful in promoting motivation at the workplace. Thus commitment and motivation of healthcare employees are seen as important issues within healthcare institutions. Organisational commitment of healthcare employees can play a creative role in fixing the outcome variables such as motivation in their work.

Commitment research has shown that it is quite strongly related to several important organisational consequences such as absenteeism, turnover, intention to search for other jobs and to leave the organisation (e.g. Allen & Meyer, 1996; Somers & Casal, 1994; Tett & Meyer, 1993), and to a lesser degree to performance measures (e.g. Larson & Fukami, 1984; but see Meyer & Allen, 1997; Randall, Fedor, & Longenecker, 1990). According to Madigan, Norton and Testa (1999:03), committed employees would work diligently, conscientiously, provide value, promote the organisation's services or products and seek continuous improvement. In exchange, they expect a work environment that fosters growth and empowerment, allows for a better balance of personal and work life, provides the necessary resources to satisfy the needs of customers and provides for their education and training as well as that of their co-workers. Martins and Nicholls in Mullins (1999:813) view commitment as encapsulating by giving all of you while at work. This commitment entails things as using time constructively, attention to detail, making that extra effort, accepting change, co-operation with others, self development, respecting trust, pride in abilities, seeking improvements and giving loyal support.

Mullins (1999:815) concludes that a high level of employee commitment implies willingness to work for the organisation's benefit: but that its continuation

depends on the reciprocal commitment by the organisation to its members. In the current industrial climate, there needs to be concern not only for producing goods or services, but also for the encouragement of innovative, exploratory and creative ideas that go beyond what can be prescribed for the job, and for the application to work of intuitive as well as explicit knowledge. These multiple objectives can only be achieved if managers consider, with care, exactly what kinds of commitment they are aiming for, and design policies and practices accordingly. In nutshell the major outcome and resulting factors of organisational commitment can be listed as follows:

- Acceptance of organisational goals and values
- Work motivation
- Employee satisfaction
- employees' loyalty
- Employee participation
- Increased performance
- Growth and empowerment
- Work life balance
- Acceptance of change
- Culture of innovation
- Self development
- Collaboration and cooperation with co-workers

3.3.6 Three Component Model of Organisational Commitment

The Three Component Model (TCM) of organisational commitment developed by John Meyer and Natalie Allen is the most popular and applicable one in the commitment literature. This model was firstly published in "Human Resource Management Review" of 1991. It explained organisational commitment as a psychological state having three distinct components namely affective, continuance and normative commitments. First component is about how employees feel about their organisation, second component relates with fear of loss while leaving organisation and third component deals with the sense of obligation to remain with organisation. Allen and Meyer (1990) and Meyer and Allen (1991) analysed an

extensive amount of commitment literature with an intention of synthesising the organisational commitment research and they defined organisational commitment as a "psychological state that characterises the relationship that the employee has with the organisation; a relationship that influences the decision of the employee to stay in or leave the organisation" (Allen and Meyer, 1990). Then they conceptualized these three distinguishable components of commitment.

The conceptualisation of the model was proposed by Allen and Meyer with a purpose of aiding the interpretative tools for existing research and setting a scientific framework for future studies. Prior to this conceptualisation the commitment was explained through behavioural and attitudinal approaches where attitudinal commitment focussed the process by which people come to think about their relationship with the organisation. The behavioural commitment is linked to the process that makes employees remain in the same organisation. In the three component model both the attitudinal and behavioural commitments were integrated and incorporated along with their complementary relationships to form a new model expanding upon the concept of commitment as a mind set or psychological state that includes desire, need and obligation. According to this conceptualisation commitment was explained under three general themes as affective attachment to the organisation, perceived cost associated with leaving an organisation and an obligation to remain with an organisation (table 3.5). Even though these themes have been mentioned in previous literature with different names and heads nobody has seen it as components of commitment rather than types of commitment.

In the three component model of organisational commitment the first component, affective commitment includes further three subcomponents as:

1. The emotional attachment to the organisation
2. The identification with the organisation
3. The involvement in the organisation.

Employees who are strong in affective commitment component want to stay employed in the organisation. The second component in the model, continuance commitment mainly refers to the perceived costs when the employee would leave

the organisation. Employees having continuance commitment generally stay employed in the organisation because they need to be. The third component in the model, normative commitment refers to a perceived obligation of an employee to stay with the organisation. Employees who are strong in this kind of commitment stay in the organisation because they believe they ought to.

Table 3.5

Three Components of Organisational Commitment

Dimensions	Definition	Motive for Performance	Psychological State
Affective Commitment	It refers to the extent to which employees feel emotionally linked, identified and involved with the organisation.	Want to stay in organisation	Desire
Continuance Commitment	It refers to the extent to which employees remain in the organisation due to the recognition of costs associated with leaving and quitting the organisation.	Need to stay in organisation	Need
Normative Commitment	It refers to the extent to which employees have a moral obligation to remain in the organisation.	Ought to stay in organisation	Obligation

Affective Commitment

Affective commitment is the first component of three component model of organisational commitment and keeps an emotional notion. It involves the emotional attachment of an employee to his organisation. It is his identification and involvement in the organisation. As the "desire" component of organisational commitment it can be defined as the positive emotional attachment of employees to the organisation. An employee who is very strong in affective commitment identifies with the goals of his organisation and remains in the organisation for a long period. An employee gets committed to the organisation because he wants to stay in that

organisation. Thus affective commitment happens once an employee adopts organisational goals and gets committed with positive emotions. (Erdheim et al., 2006; Wasti, 2004; Cheng and Stockdale, 2003).

Affective commitment is found to be influenced by many different demographic characteristics such as age, tenure, sex, and education and these influences are neither consistent nor strong. Further employees with affective commitment will be enduring and indispensable demonstrably. According to Meyer and Allen (1991) work experiences have the strongest and most consistent positive relationship with affective commitment. To date, empirical research has shown that affective commitment predicts employee performance (Meyer, Paunonen, Gellatly, Goffin, & Jackson, 1989), absenteeism (Sagie, 1998), turnover (Tett & Meyer, 1993) and organisational citizenship (Meyer, Stanley, Herscovitch, & Topolnytsksy, 2002; Organ & Ryan, 1995) better than the other components of commitment. A worker who is emotionally committed will display a live and voluntary participation in the organisational goals (Movday et al., 1979). The antecedents of affective commitment are generally grouped into four categories as structural characteristics, personal characteristics, work experiences and job related characteristics.

Continuance Commitment

Continuance Commitment refers to a form of commitment that is highly related with the costs and losses that employees calculate while leaving certain organisation and it is viewed as the need part of working in an organisation. It is usually assumed that continuance commitment will develop as result of lack of alternative employment opportunity and accumulation of side bets. The economic costs like pension accruals and social costs like friendship ties are generally believed as the costs of losing organisational membership. It further reflects the recognition of costs related with leaving an organisation. Naturally positive costs are preferred by employees to remain in a specific organisation and very rarely the possibility of other alternatives is considered to be incurred from leaving their organisation. Thus anything that causes to increase the perceived cost of leaving organisation can be

considered as the antecedents of this commitment which may include side bets, investments and availability of alternatives.

In continuance commitment an employee perceives about the costs related with the leaving his organisation. The costs of leaving an organisation include costs that are related to the work such as lapsed time, skills than can't be transferred and costs that are not related to the work (Erdheim et al., 2006; Wasti, 2004; Cheng and Stockdale, 2003). Some personnel think of the loss in physical and spiritual satisfaction like the status acquired, authority and salary. This belief forces employees for compulsory or mandatory commitment to the organisation (Obeng and Ugboro, 2003).

Normative Commitment

Normative commitment, the last component of organisational commitment involves the employees' feelings of obligation to stay within the organisation and refers to the attachment of employees and motivation to comply with rules and norms. Normative commitment is considered as moral commitment or a norm related commitment in organisational commitment literature. Normative commitment is understood as an internalised norm within the organisation that gets developed before or after joining of the employee in the organisation for a particular job.

Normative commitment is a loyalty expressed by employees based on the norms and values of the organisation. Normally an organisation spends a lot of monetary and non-monetary efforts for the sake improving the skills of its workforce. The employee who is normatively committed calculates these figures while he plans or intends to leave his organisation. This feelings compel him to stay with the organisation because he is ought to. Normative commitment is thought to be very higher in organisations that value loyalty and internal norms of employees. Employees who have been educated with internal norms and values of an organisation get more normatively committed. Those who are highly normative committed to their organisation contribute more to organisational success and experiences higher levels of job satisfaction.

3.4 Mental Healthcare

Health has been defined as a positive sense of well being physically, mentally, socially and not merely an absence of illness. Mental health thus is an integral component of total health and mental health is not merely an absence of mental illness. It is a balance between all aspects of life likes emotional, economical, spiritual, as well as physical which shows how we feel and think about our self, others and how we face life's situations. A person is believed to be mentally healthy if he can realise his own potential, can adjust and cope with difficulties of life and can work fruitfully. It is a level of wellbeing that enables one to make a contribution to his society, family and community. Mental illness is explained as a general term that refers to a group of illnesses affecting the mind, in the same way that physical illness refers to illnesses which affect the body. Most of the mental health problems are influenced by various biological, social and psychological factors and have medical, spiritual and mental impacts. Thus mental healthcare is any system developed to give care for mentally ill patients who suffer from any kind of mental disorder or mental problem.

Mental illness is a health condition that involves changes in thinking, emotion and behaviour and is associated with distress and problems functioning in social, work or family activities. It is a disease that causes mild to severe disturbances in thought or behaviour resulting in an inability to cope with life’s ordinary demands and routines. Mental disorders are generally classified into two categories namely neurosis and psychosis and globally there are more than two hundred classified forms of mental illness. The more common disorders that are prevalent in society includes depression, bipolar disorder, dementia, schizophrenia and anxiety disorders. These symptoms usually causes for changes in mood, personality, personal habits and social withdrawal. Mental health problems are found to be related with excessive stress due to a particular situation or series of events and it may be caused by a reaction to environmental stresses, genetic factors, biochemical imbalances, or a combination of these. With proper care and treatment

many individuals learn to cope or recover from a mental illness or emotional disorder.

In mental healthcare, caregivers or healthcare professionals have a crucial role as their main task is to provide and coordinate the needed care and to help the patients to get out of their illness. They often confront excessive occupational stress and sometimes feel emotionally exhausted. They cope with a broad range of problematic behaviours such as verbal abuse, serious neglect, aggression, acting out and positive symptoms is their routine task. They feel that they are not appreciated by the clients when the clients need long term care and progress is difficult and relapses are not exceptional. As a result, caregivers get frustrated, dissatisfied and discouraged which leads to absence and burn out. Many often these feelings affect their clients negatively making them confused and decide to end counselling.

Expressed emotion is a well-established and well-developed construct for charting and assessing social interactions between professional caregivers and clients. It refers to the amount of criticism, hostility, and emotional over involvement (EOI) of a formal or informal caregiver with respect to the patient. First developed in 1959 (Brown, 1959; Brown *et al.*, 1958; 1962; 1972), its strength is that it is a reliable and robust predictor of the illness outcome of patients with a broad range of severe psychiatric disorders and physical illnesses (Wearden *et al.*, 2000). This means that patients living in high-EE environments (high criticism, presence of hostility and/or presence of EOI) have three to five times more risk of relapsing than do patients living in low-EE environments.

3.4.1 Major Mental Health Disorders

There exist several types of mental condition and disorders that are identified and recognised by various health bodies and organisations as mental illness. The disorders are generally classified into two categories as severe mental disorders and non-severe mental disorders. Serious mental disorders include the illnesses such as schizophrenia, bipolar disorders, panic disorders and developmental disorders while non-serious disorders include personality disorders, anxiety disorders, seasonal affective disorders and social phobias. Even though medical community argues the

existence of more than two hundred classified types of the disorders the major illness can be explained under five categories as follows:

- **Anxiety disorders:** a form of mental illness that causes people to experience distress, fear and apprehension. These feelings may experience periodically and lead to worst mental conditions like panic attacks, physical symptoms, nightmares and obsessive thoughts. The common diagnosis of this disorder are Obsessive-compulsive disorder (OCD), Post-traumatic stress disorder (PTSD), Social phobia (social anxiety disorder) and Generalized anxiety disorder (GAD)

- **Mood disorders:** in mood disorder patients experience feeling of sadness, irritability and disruption. People with mood disorders suffer from severe symptoms and mood related issues that causes for deterioration in mental and psychological wellbeing. Depression and bipolar disorders are the common conditions of mood disorder that may affect the everyday life of an individual leading to chronic physical health disorders.

- **Schizophrenia and psychotic disorders:** Schizophrenia is a serious brain disorder and causes for significant changes and disruption in both cognitive and emotional functioning of human being. Schizophrenia affects the most basic aspects of human life such like language, communication, thinking process, perception of objects and memory. The most common symptoms of schizophrenia include hearing voices, hallucinations, delusions, social withdrawal, incoherent speech and abnormal reasoning.

- **Dementia:** Dementia is a medical condition that disrupts the way the brain works and is distinguished by a disruption of consciousness, as well as changes in cognitive health, such as memory loss and motor skills. Dementia is caused by the damage to brain cells. This damage interferes with the ability of brain cells to communicate with each other. When brain cells cannot communicate normally, thinking, behaviour and feelings can be affected. Different types of dementia are associated with particular types of

brain cell damage in particular regions of the brain. For example, in Alzheimer's disease, high levels of certain proteins inside and outside brain cells make it hard for brain cells to stay healthy and to communicate with each other.

- **Eating Disorders:** Eating disorders are serious, chronic conditions that can be life-threatening and typically starts during the adolescent years and primarily affect females. While there are variations in the expression, symptoms, and course of eating disorders, the common thread is that they all involve obsessive and sometimes distressing thoughts and behaviours, including reduction of food intake, overeating, feelings of depression or distress and poor self-image. At the onset, these disorders begin with the person eating smaller or larger portions than usual. However, over time the patient urges to decrease or increase the amount of food eaten and the illness escalates. The three most common types of eating disorders are Anorexia Nervosa, Bulimia Nervosa and Binge Eating Disorder.

Alzheimer's disease (AD) is the most common cause of dementia in older people. Alzheimer's affects the parts of the brain that control thought, memory, and language and the risk of getting the disease increases with age. At present the cause of the disease is unknown and there is no cure. Alzheimer's was named after Dr. Alois Alzheimer, a German psychiatrist. In 1906, Dr. Alzheimer described changes in the brain tissue of a woman who had died of an unusual mental illness. He found abnormal deposits (now called senile or neuritic plaques) and tangled bundles of nerve fibres (now called neurofibrillary tangles). These plaques and tangles in the brain have come to be characteristic brain changes due to Alzheimer's. The symptoms in this disorder include initial mild forgetfulness, confusion with names and simple mathematical problems, forgetfulness to do simple everyday tasks, i.e., brushing their teeth, problems in speaking, understanding, reading and writing, behavioural and personality changes and aggressive, anxious, or aimless behaviour.

The fifth chapter of The International Classification of Diseases (ICD), an international standard for diagnostic classification of a wide variety of health

conditions, focuses on mental and behavioural disorders that consisted of ten main groups as follows:

- Organic, including symptomatic, mental disorders
- Mental and behavioural disorders due to use of psychoactive substances
- Schizophrenia, schizotypal and delusional disorders
- Mood [affective] disorders
- Neurotic, stress-related and somatoform disorders
- Behavioural syndromes associated with physiological disturbances and physical factors
- Disorders of personality and behaviour in adult persons
- Mental retardation
- Disorders of psychological development
- Behavioural and emotional disorders with onset usually occurring in childhood and adolescence
- Unspecified mental disorders

3.4.2 Mental Health Act, 1987

The Mental Health Act, 1987 is an act passed by parliament on 22 May 1987 replacing the Indian Lunacy act of 1912. It came into effect in all the states and union territories of India in April 1993. The law was described in its opening paragraph as "An Act to consolidate and amend the law relating to the treatment and care of mentally ill persons, to make better provision with respect to their properly and affairs and for matters connected therewith or incidental thereto."

The major objectives of this Act are the establishment of central and state authorities for licensing and supervising the psychiatric hospitals, the establishment of psychiatric hospitals and nursing homes, providing a check on working of these hospitals, providing for the custody of mentally ill persons who are unable to look after themselves and are dangerous for themselves and or, others, the protection of the society from dangerous manifestations of mentally ill persons, the regulation of procedure of admission and discharge of mentally ill persons to the psychiatric

hospitals or nursing homes either on voluntary basis or on request, the safeguarding of the rights of these detained individuals and the protection of citizens from being detained

The Mental Health Act, 1987 is divided into ten chapters consisting 98 sections where first chapter deals with preliminaries of the act, definitions and provides for change of offensive terminologies used in Indian Lunacy act 1912. The second chapter deals with the procedures for establishment of mental health authorities at central and state levels. The third chapter lays down the guidelines for establishment and maintenance of psychiatric hospitals and nursing homes along with the provisions for licensing authorities. The procedures of admission and detention of mentally ill in psychiatric hospitals is explained in fourth chapter. The judicial inquisition regarding alleged mentally ill persons and its management is proposed in sixth chapter. The maintenance of mentally ill persons in a psychiatric hospital, the protection human rights of mentally ill persons, the penalties for infringement of guidelines in Act are narrated in detail in remaining chapters.

3.4.3 National Mental Health Programme

The national mental health programme (NMHP) was started in 1982 to ensure the availability and accessibility of minimum mental healthcare service for all Indians and to encourage mental health knowledge and skills in order to promote the community participation in mental healthcare services. The programme was launched with a view to reduce the heavy burden of mental illness in the community and to promote better mental healthcare infrastructure in the country. The major strategies aimed by formulating national mental health programme were the integration of mental health with primary healthcare, provision of tertiary care institutions for treatment of mental disorders, eradication of stigmatisation of mentally ill patient and protecting the rights of mentally ill patients. The District Mental Health Program (DMHP) was launched under this programme in the year 1996 in eleventh Five Year Plan.

The programme aimed to prevent and treat all kinds of mental and neurological disorders along with their associated disabilities. It used newer mental

health technologies to improve general health services and applied latest mental health principles to improve quality of life. The noted approaches under this programme are:

- Integration of mental healthcare service with the existing health services
- Utilisation of the existing infrastructure to deliver the minimum level of mental health service
- Provision of appropriate task oriented training to the existing health staff
- Linkage of mental health services with the existing community development programme

However the national mental health programme was re-strategized in 2003 in order to extend the District Mental Health Program to one thousand districts, to upgrade the psychiatry wings of government medical colleges, to modernise the state mental hospitals and to monitor and evaluate the functioning of mental healthcare systems. This reformulation and up gradation of psychiatry wings led to the enhancement of schemes under National Mental Health Program which include:

- District Mental Health Programme (DMHP)
- Manpower Development Schemes - Centres of excellence and setting up or strengthening of PG training departments of mental health specialities
- Modernization of state run mental hospitals
- Up gradation of psychiatric wings of medical colleges/general hospitals
- IEC
- Training & Research
- Monitoring & Evaluation

Integration of mental health care services with the existing health services, utilization of the existing infrastructure of health services and also deliver the minimum mental health care services, provision of appropriate task-oriented training to the existing health staff and linkage of mental health services with the existing community development program are the leading approaches of this programme.

Treatment at multiple levels, Rehabilitation and prevention are considered as the components of the program. The objectives of the programme are listed as follows:

- To ensure availability & accessibility of minimum mental health care for all in the foreseeable future, particularly to the most vulnerable & underprivileged sections of the population.
- To encourage application of mental health knowledge in general health care & social development.
- To promote community participation in the mental health services development & to stimulate efforts towards self-help in the community.

3.4.4 An Overview of Kerala Healthcare System

Health is a vital factor for human well-being and existence as it contributes to the quality of life and enhances peoples' ability to enjoy life and relationships. Health plays a major role in social life of Kerala as a contributor to social equilibrium, physical wellbeing, financial enhancement and economic growth. Health produces more to the economy of Kerala as healthier workers will be more productive than unhealthy workers and they will have higher learning capacity, efficiency, coping skills, and creativity. In any social condition water supply, sanitation, solid and liquid waste management system and climate change are thought to be the major social determinants of the health. Food and nutrition, regular employment, housing, women empowerment etc are the significant factors in achieving better health. Communicable diseases, non communicable diseases, cancer care, women's health, maternal health, child health, adolescent health, school health, mental health, health problems of elderly, health of vulnerable sections are the important sub parts of health sector.

Kerala is a forward running Indian state in health sector indicators building a strong health care system that can be compared with advanced countries in many aspects. Kerala has achieved good health indictors compared to other Indian states and the prime reason for this has been the stewardship role that successive governments, before and after independence. Both public and private sectors are

doing their best for better service of Kerala health and private sector is dominating public sector in many aspects. The Kerala health sector constitutes of traditional indigenous Ayurveda system (33.2%) and Homeopathy (24.3%) and Allopathy (39.1%) institutions.

Even though Kerala Healthcare was a good model in the past with good records the present condition projects certain challenges and shortcomings in terms infrastructure and expert service providers. It lags behind in many a health related indicators and face challenges in many aspects. It is facing the emergence and re-emergence of some of the communicable diseases along with problems resulting from the epidemiological and demographic transition. Kerala is still below in number of doctors and nurses per 10,000 populations, if one compares it to developed countries. A little exercise suggests that Kerala would be still below the developed countries in terms of Allopathy doctors per 10,000 populations. Shifting family structures, an aging population, epidemiological transition, mental health related issues and increasing social inequities are major leading health problems. In order to navigate the sector through the multiple challenges faced in the health sector Government of Kerala needs to articulate the policy framework under which all the stakeholders can develop their strategies.

In Kerala the healthcare services are provided mainly by Ayurveda, Allopathy and Homeopathy systems of medicine. Government acknowledges the importance of the three systems of medicine and encourages studies of the comparative advantages of treatments under the three systems in all healthcare systems. Government health services currently function as a conglomeration of standalone institutions causing a high degree of inefficiency. Government aims to link them in a networked care system that needs a higher level of organisation and management than what health services currently possess. The major stake holders in providing healthcare in Kerala include:

Tertiary Care: Tertiary care is provided in government service sector through medical college hospitals. Every district in Kerala is planned to have at least one

government medical college. Each of these hospitals should be equipped to manage emergency cases in all specialties and super specialties.

Specialty Hospitals: With advances in pharmacology specialist hospitals like TB and Leprosy have lost their relevance. Mental Health care is also increasingly being managed at general hospitals. Public Health care and Health protection Agency, Communicable disease surveillance and execution of control measures, Non communicable Disease control, Cancer care, Measures for reducing the Road Traffic Accidents other trauma and developing systematic trauma care services, Community mental health care and services, Strengthening Laboratory Network in the State are some speciality centres working in Kerala.

Medical College Hospitals: In time all districts in Kerala will have a government medical college. Some of the existing medical college hospitals have become unmanageably large. With better referrals linkages and teaching hospitals coming up in every district it should be possible to restrict such hospitals to 1000 beds and focussing on quality and research. All teaching hospitals, in addition to providing specialist consultation services to other hospitals in the districts, will also be involved in training and quality control of services in other hospitals. They will provide the top most level of the networked care system managed by primary care providers.

Secondary Care Institutions: It includes General/District hospitals, Women and Children's hospitals and Taluk head quarters hospitals which provide secondary care. These hospitals are generally equipped to deal with routine diseases.

Community Health Centres: Community Health Centre is the lowest unit of the Health Protection Agency and Public Health Cadre. It includes block level institutions established for providing basic speciality services. Due to the shortages in specialists these services are being provided after the requirements of higher level institutions are addressed. Facilities at the Community Health Centres gets utilised as Coordinating Centres of Pain and Palliative Care, terminal care and Community Mental Health Programme.

Taluk Head Quarters Hospital: A Taluk Head Quarters Hospital provides an optimal level of secondary care services with all major and minor specialities where average bed strength ranges to 300. Emergency services, laboratories, blood bank/blood storage centres, units for maintenance dialysis, physiotherapy and rehabilitation and de-addiction centres are the supporting services established in these hospitals.

District/ General Hospitals: One District or General hospital in the district is set to have all major and minor specialities along with few other super specialities. Super specialities are built up accordingly subject to availability of doctors. These include cardiology, neurology, nephrology and urology. Further a Women and Child Hospital is established in every district to ensure adequate attention to the needs of mothers and children.

Primary Health Centres: Primary Health Centres are established in the state to promote the health-related activities including prevention of communicable and non communicable diseases, post natal care and adolescent health, disease surveillance, immunisation, implementation of the maternal and child health programmes comprising antenatal care and implementation of other national health programmes. Usually it is not responsible to respond to the current challenges as non communicable diseases, mental health issues and geriatric care. Government intends to revamp the primary care provision to make them assume responsibility for population allotted to them. The primary care team will be trained to function as a general practice team dealing with a smaller population.

Private Sector: presently the private sector dominates the Kerala healthcare services. The private sector in Kerala was formed to meet the demand that was unmet when government cut back their investment due to fiscal strain. Currently the private sector accounts for more than 70% of all facilities and 60 of all beds. The types of ownership range from corporate to single proprietor. They vary in sophistication from single doctor hospital to multi-speciality hospitals and have become the preferred providers for the affluent and the middle class. As secondary care in government services became restricted to Taluk hospitals and above it was

the private sector that provided services in some remote areas of the state. These small hospitals, which fulfilled an important role in the health sector in Kerala, are threatened by increasing cost of operation and the preference of patients for more sophisticated hospitals.

Table 3.6

General Healthcare System in Kerala

Healthcare Providers	Total No:
Medical Colleges(Govt Sector)	7
Medical Colleges(Co-operative Sector)	1
Medical Colleges (Private Sector)	18
Govt. Mental Health Centres	3
District Hospitals	16
General Hospitals	18
Taluk Head Quarters Hospitals	81
Community Health Centres	105
Primary Health Centres	944
Government dispensaries	239
Government Rural Dispensaries	310
Sub Centres	5094

3.4.5 Mental Healthcare in Kerala

Mental health care activities in the State of Kerala are governed by the Mental Health Act, 1987 enacted by Government of India and the State Mental Health Rules, 1990. The State Mental Health Authority established in 1993 under Section 4 of the Act is responsible for regulation, development and coordination of all activities in the State connected with mental health. The state is taking initiative to incorporate the mental health services with the general health care services up to the primary health centre level. This plan is carried out through establishing district mental health programmes that will ensure the availability of specialist units in Public Health Centres (PHC) and psychiatry units in Taluk and District Hospitals to

diagnose and prescribe medication. The management functions will be left in the hands of the PHC team itself and the rehabilitation of mentally ill persons will be done jointly by Health, Social Justice and Local Self Government Departments.

Considering the higher prevalence of the mental health problems such as suicide and alcoholism the government has launched the District Mental Health Programme and NRHM supported community mental health programmes that were extended later to all districts in the state. It aims for the integration of the mental healthcare activities with the primary health care at the PHC, CHCs utilizing the service of health care providers like doctors and field workers. It further plans to give ASHA workers specific training and certification for the working as part of the block level team and empowered with necessary skill and knowledge in mental healthcare and household level counselling of the patients.

Despite appreciable increase in scientific advancements and material success, statistics show that the rate of mental health disturbances in Kerala is increasing day by day at an alarming rate. The more the material comfort of life people enjoy the greater the mental health of people deteriorating progressively. The major mental health problems prevalent in Kerala are mental retardation, suicide, aggression on others, alcoholism, divorce, domestic violence, use of drugs, attack on women and children, marital breakdown, severe psychological trauma, trend of school college dropouts and the like. National mental health program documents mentions that 20 to 30 million Indians are in need of some formal mental healthcare. Kerala State Mental Health Authority (KSMHA) reveals that 10% of Keralites suffer from any kind of mental illness where 2% of them are with severe mental problems. According to the report of CAG as much as 5.86% of Kerala population suffers from mental illness against a national average of 2%. Kerala State Crime Records Bureau states that the mental illness is the reason behind 19% of suicides in the state which is the largest suicide rate in India.

According to World Health Report 20 percent of all patients treated by primary care providers have one or more mental disorders and one out of four families is likely to have at least one member with a behavioural or mental disorder.

Kerala contributes 10.1% of all the suicides that occur in India while the population constitutes only 3.4% of the nation's population. In the period of 1991-2002 the incidence of suicide in Kerala was at a compound growth of 4.61% as against the population growth of 2.2%. In 2003 Kerala showed a highest suicide rate of 29.7 per one lakh which was two and half times higher than national average. The alcohol and other drugs related problems are also high in Kerala where the per capita consumption of alcohol goes to higher limits. The figures alcohol consumption and divorce rate show the severity of the mental health problems prevailing in Kerala.

As per the 2001 census, 5.87 per cent (18.66 lakh) of the total population in Kerala is affected with mental illnesses such as psychosis, bipolar disorder, alcohol consumption and drug abuse compared to the all India figure of two per cent. According to the census there is 0.45 per cent mentally disabled in Kerala (out of total population) in 2001, which is the highest amongst all the states in India. The corresponding number for all India was 0.22 per cent. District-wise analysis using the census of mental disability (2001) reveals that the incidence of mental illness is relatively high in Malappuram, Kozhikode, and Thiruvananthapuram. The CAG (2011) sums it up using the following words - "A review of the mental health care facilities revealed absence of proper mental health planning; non-achievement of objectives of the Mental Health Policy 2000; non-utilisation of Central funds; inadequate infrastructure facilities; shortage of manpower and inadequate monitoring of mental health care facilities available in the State".

3.4.6 Prevalent Mental Health Disorders in Kerala

Recent statistics and studies indicate that mental disorders in Kerala are increasing at a threatening rate both for male and female population at different age levels. Most of the mental or behavioural disorders happen due to the mood disorder and psychoactive substance use. The prevalent mental disorders in Kerala include alcohol consumption, delusional disorder, stress-related disorder, mental retardation, divorce, family breakdown, suicide, domestic violence, anxiety and schizophrenia.

Alcohol Consumption: Kerala is ranked at the top in alcohol consumption in the country. The consumption pattern has steadily increased from 1980 to 2010. The

Alcohol and Drug Information Centre in India (ADIC-India), estimates that per capita consumption of alcohol in Kerala is 8.3 litres per annum. Twenty percent of the general population of state uses alcohol making the intensity of drinking very high (14% of population consume alcohol daily), as compared to the other states of the country. A large proportion of males aged 50-54 years, separated persons and widowers were found to use alcohol every day. The age of first drinking has also decreased steadily from 19 years (1986) to 13 years (2001). Data on sales reveal a sharp increase in sales since the mid−1990s.

Suicide: Kerala shows a very high suicide rate with an annual suicide rate of 27/100,000 population. Clinical conditions, socio economic factors like migrations, debt traps, socio-cultural settings like disintegrating traditional social support systems and aspirations disproportionate to resources mainly contribute to the suicide intentions in the state. Population of Kerala as per the census 2014 is 3,39,00,662 and the total number of suicide in Kerala during 2014 is 8446. The suicide rate in Kerala for the year 2014 is 24.9 per lakh and in 2013 it was 25.6 per lakh while the total number of suicide reported is 8646. However the rate of suicide is remaining steady compared to other states among youngsters and family suicide is also on the higher side in Kerala. suicide is found to be maximum in Kollam, Thiruvananthapuram, Wayanad and Idukki districts and the highest rate of suicide is in Kollam district(41.3/ Lakh) followed by Thiruvananthapuram district (41.1/Lakh), Wayanad (36.6/ lakh) and Idukki district (34.7/ lakh). Suicide rate is consistently low in Malappuram district and is only 8.3/Lakh in 2012 though population is at maximum in this district.

3.4.7 Kerala State Mental Health Authority

Kerala State Mental Health Authority is the statutory body constituted by Government of Kerala in accordance with section 4 of the Mental Health Act 1987. It was formed in November 1 1993 as per the notification No (P) 122 / 93 Health and Family Welfare Department dated 1/11/1993 by the advice of the Government of India and its office is situated in a separate building adjacent to the office of the District Medical Officer, Thiruvananthapuram. It is functioning under the

superintendence, direction and control of the State Government. The Authority is empowered with

- Regulation, development and co-ordination with respect of Mental Health Services under the State Government and all other matters which, under this Act, are the concern of the State Government or any officer or authority subordinate to the State Government
- Supervise the psychiatric hospital and psychiatric nursing homes and other Mental Health Service Agencies (including places in which mentally ill persons may be kept or detained) under the control of the State Government
- Advise the State Government on all matters relating to mental health
- Discharge such other function with respect to matters relating to mental health as the State Government may require

Kerala State Mental Health Authority is the responsible body for licensing mental healthcare institutions in Kerala. It licenses the institution applied for license based on certain guidelines and regulations as prescribed in State Mental Health Rules 1990 for maintaining Psychiatric institutions. Presently there exist seventy three institutions licensed by authority in private sector. The existing public mental health services available in Kerala under Kerala State Mental Health Authority are given in the table 3.7

Table 3.7

Existing Mental Health Services in Kerala

Service Providers	No. of Beds
Mental Hospitals in Thiruvananthapuram, Kozhikode and Thrissur.	1342
Psychiatry Departments of Govt Medical Colleges.	216
Govt General Hospital Psychiatry Units	156

3.4.8 Mental Health Policy of Kerala, 2013

The Govt of Kerala drafted a substantive mental health policy in 2013 to address the mental health issues of its population. The objectives of the policy were classified into two broad categories as long term objective and short term objectives. The policy was mainly formulated to ensure effective and affordable treatment for all those who suffer from any kind of mental disorder and to enhance the livelihood of mentally ill patients. It attempts to differentiate between physically disabled and mentally ill persons to ensure necessary interventions for drug addicted ones. The mental health awareness programmes, mental health education and course of psychiatric treatments come under the educational programmes of this policy

The policy further aims to incorporate the mental health services with the general health care services up to the primary health centre level by establishing district mental health programmes. It seriously seeks the implementation mental health programmes at primary health centres, Taluk hospitals and district hospitals to ensure the availability of affordable treatment for mentally ill patients. The major issues in mental healthcare sector should be monitored and evaluated in ten years to upgrade medical colleges and mental health centres as referral points for medical students. The rehabilitation procedures of mentally ill persons should be done as joint effort of Health, Social Justice and Local Self Government Departments.

Considering the higher prevalence of the mental health problems, suicides, alcoholism the policy wants speedy implementation of District Mental Health Programme and NRHM supported community mental health programmes throughout the state extending the system to all districts. The major suggestions and guidelines in the policy can be listed as follows:

- Mental health to be covered under insurance policies.
- Human rights protection to be applied to of people with mental disorder.
- Each primary health care facility to have a mental health coordinator.
- People to be sensitised about the importance of mental health issues by initiating a public campaign for stigma and depression.

- Clinical and administrative guidelines and standards to be elaborated and distributed and specialized nurses' training programmes to be conducted.
- In-service training to be provided to health workers.
- Mental health surveillance system to be maintained.
- Timely meetings with mental health teams in districts, etc., to be arranged.
- Activities involving people with mental disorders and their families to be supported and coordinated.
- Mutual aid and mental health advocacy groups to be formed.
- Various school programmes, including mental health promotion, and early treatments of hyperkinetic disorders to be considered.

3.4.9 District Mental Health Programme (DMHP)

The District Mental Health Programme was started as a component of the National Mental Health Programme (NMHP). The programme is mainly intended:

- To provide sustainable mental health services to the community and to integrate these with Health services.
- Early detection of patients within the community itself.
- To see that, patients and their relatives do not have to travel long distance to go to hospitals or nursing homes in the cities.
- To take pressure off the mental hospitals and Medical colleges.
- To reduce the stigma attached towards mental illness through change of attitude and public education.
- To treat and rehabilitate mental patients discharged from the mental hospital within the community

The major components of DMHP include:

- Training of medical and paramedical personnel in mental health skills.
- Community Mental Health care through existing infrastructure of the health services
- Information, Education and Communication activities.
- Community oriented Rehabilitation Services.

References

Albrecht, S. L. (2010a). Employee engagement: 10 key questions for research and practice. In S. L. Albrecht (Ed.), *Handbook of employee engagement: Perspectives, issues, research and practice* (pp. 3-19). Cheltenham: Edward Elgar.

Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organisation. *Journal of Occupational Psychology,* 63, 1-18.

Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organisation: An examination of construct validity. *Journal of Vocational Behaviour,* 49, 252-276.

Allen, N. J., & Smith, J. (1987, June). *An investigation of "extra-role" behaviours within organisations.* Paper presented at the annual meeting of the Canadian Psychological Association, Vancouver, British Columbia.

Allen, N. J., & Meyer, J. P. (2000). Construct validation in organisational behaviour research: The case of organisational commitment. In R. D. Goffin & E. Helmes (Eds.), *Problems and solutions in human assessment: Honouring Douglas N. Jackson at seventy* (pp. 285–314). Norwell, MA: Kluwer.

Altun, I. (2002, May). Burnout and nurses' personal and professional values. *Nursing Ethics,* 9 (3).

Angel, H. L. & Perry, J. L. (1981). An empirical assessment of organisational commitment and organisational effectiveness. *Administrative Science Quarterly, 26*(1), 1-14.

Austin, E.J., Saklofske, D.H. & Egan, V. (2005). Personality, well-being and health correlates of trait emotional intelligence. *Personality and Individual Differences,* 38(3). 547-558.

Bagshaw, M. (2000). Emotional Intelligence-training people to be affective so they can be effective. *Industrial and Commercial Training, 32* (2), 61-65.

Barbuto, J. E., Burbach, M. E. (2006). The Emotional Intelligence of Transformational Leaders: A Field Study of Elected Officials. *The Journal of Social Psychology, 146*(1), 51-64.

Barling, J., Slater, F., & Kellowag, E. K. (2000). Transformational leadership and emotional intelligence: an exploratory study. *Leadership and Organisation Development Journal, 21* (3), 157-161.

Bar-On, R. (1997). *The Emotional Intelligence Inventory (EQ-I)*: Technical manual. Toronto: Multi-Health Systems.

Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory. In R. Bar-On & J.D.A. Parker (Eds.), *The handbook of emotional intelligence* (pp. 363–388). San Francisco, CA: Jossey-Bass.

Baumruk, R. (2004). The missing link: the role of employee engagement in business success. *Workspan*, 47, 48-52.

Becker, H. S. (1960). Notes on the concept of commitment. *American Journal of Sociology*, 66, 32-42.

Belkic, K. L., Landsbergis, P. A., Schnall, P. L., & Baker, D. (2004). Is job strain a major source of cardiovascular disease risk? *Scandinavian Journal of Work, Environment & Health, 30,* 85-128.

Bluedorn AC (1982). A unified model of turnover from organisations. *Human Relations* 35, 135-153.

Brickman, P. (1987). Commitment. In C. B. Wortman & R. Sorrentino (Eds.), *Commitment, conflict, and caring* (pp. 1-18). Englewood Cliffs, NJ: Prentice Hall.

Brooks, K., & Nafuko, F. N. (2006). Human resource development, social capital, emotional intelligence: Any link to productivity? *Journal of European Industrial Training*, 30 (*2*), 117-128.

Brown, F. W., & Moshavi, D. (2005).Transformational leadership and emotional intelligence: a potential pathway for an increased understanding of interpersonal influence *Journal of Organisational Behaviour, 26,* 867-871.

Brown, R. B. (1996). Organisational commitment: Clarifying the concept and simplifying the existing construct typology. *Journal of Vocational Behaviour, 49,* 230-251.

Cannon, Walter (December 1927). "The James-Lange Theory of Emotions: A Critical Examination and an Alternative Theory". *The American Journal of Psychology*. 39: 106–124.

Carmeli. A. (2003). The relationship between emotional intelligence and work attitudes, behaviour and outcomes: An examination among senior managers. *Journal of Managerial Psychology, 18* (8), 788-813.

Chang H, Chi N, Miao M (2007). Testing the relationship between three-component organisational/occupational commitment and organisational occupational turnover intention using a non-recursive model. *Journal of Vocational Behaviour*, 70, 352-368.

Chapman, M. & Clarke, R. (2003). Emotional Intelligence is a concept that can be used in Stress Management: A response to Slaski, Stress News July 2002. *Stress News*, *15* (1).

Cheng Y, Stockdale MS (2003). The validity of the three-component model of organisational commitment in a Chinese context. *Journal of Vocational Behaviour*, 62, 465-489.

Cherniss, C. (2000). Social and emotional competence in the workplace. In R. Bar-On & J. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace* (pp. 433–458). San Francisco: Jossey-Bass.

Cherniss, C. (2001). Emotional intelligence and organisational effectiveness. In C. Cherniss & D. Goleman (Eds.), *The emotionally intelligent workplace* (pp. 3–12). San Francisco: Jossey-Bass.

Chong VK, Eggleton IRC (2007). The impact of reliance on incentive based compensation schemes, information asymmetry and organisational commitment on managerial performance. *Management Accounting Res*ults, 18, 312-342.

Cooper, R.K. (1997). Applying emotional intelligence in the workplace. *Training and Development*, *51 (12)*, 31-33.

Cooper, R.K., & Sawaf, A. (1997). *Executive EQ: Emotional intelligence in leaders and organisations*. New York: Grosset/Putnam.

Cummings, T., & Worley, C. (2005). *Organisation development and change* (8th ed.). Mason, OH: Thompson-Southwestern College.

Curtis CR, Upchurch RS, Severt DE (2009). Employee motivation and organisational commitment: a comparison of tipped and no tipped restaurant employees. *International Journal of Hospitality and Tourism Administration*, 10, 253-269.

Demerouti, E., Bakker, A.B., Janssen, P.P.M. & Schaufeli, W.B. (2001). Burnout and engagement at work as a function of demands and control. *Scandinavian Journal of Work, Environment & Health*, *27*, 279-286.

Demerouti, E., Mostert, K., & Bakker, A. B. (2010). Burnout and work engagement: A thorough investigation of the independence of both constructs. *Journal of Occupational Health Psychology, 15,* 209-222.

DeSilva DAM, Yamao M (2006). The involvement of female labor in seafood processing in Sri Lanka: Impact of organisational fairness, organisational commitment and supervisor evaluation on employee commitment. In Choo PS, Hall SJ, Williams MJ (eds.) Global Symposium on Gender and Fisheries. Seventh Asian Fisheries Forum, 1-2 December, 2004, Penang, Malaysia, pp. 103-114.

Diggins, C., & Kandola, P. (2004). Emotional intelligence: the key to effective performance. H*uman Resource Management*, *125*(1), 33-35.

Downey, L.A., Papageorgiou, V., & Stough, C. (2006). Examining the relationship between leadership, emotional intelligence and intuition in senior female managers. *Leadership and Organisation Development Journal*, *27* (4), 250-264.

Downing, S.J. (1997) Learning the plot: emotional momentum in the search of dramatic logic. *Management Learning*. 28 (1), 27-44

Dulewicz, V., & Higgs, M. (2000). Emotional intelligence: A review and evaluation study. *Journal of Managerial Psychology*, 15(4), 341-372.

Durán, M. A., Extremera, N., & Rey, L. (2010). Analyzing the contribution of emotional intelligence and core self-evaluations as personal resources to employee engagement. In S. L. Albrecht (Ed.), *Handbook of employee engagement: Perspectives, issues, research and practice* (pp. 209-217). Cheltenham: Edward Elgar.

Eby LT, Freeman DM, Rush MC, Lance CE (1999). Motivational bases of affective organisational commitment: A partial test of an integrative theoretical model. J. Occup. Organ. Psychol., 72, 463-483.

Epstein, S. (1998). *Constructive thinking: The key to emotional intelligence*. New York: Praeger.

Erdheim, J, Wang, M. & Zickar, M. J. (2006). Linking the Big Five personality constructs to organisational commitment. *Personality and Individual Differences*, 41, 959-970.

Frank, F.D., Finnegan, R.P. and Taylor, C.R. (2004) The race for talent: retaining and engaging workers in the 21st century. *Human Resource Planning*, 27 (3), 12-25.

Frijda, N. H. (1993). Moods, emotion episodes, and emotions. In M. Lewis & J. M. Haviland (Eds.), Handbook of emotions (pp. 381-403). New York: Guilford Press

Gardner, L., & Stough, C. (2002). Examining the relationship between leadership and emotional intelligence in senior level managers. *Leadership and Organisation Development Journal, 23* (2), 68-78.

Goffman, E. (1961). *Encounters: Two studies in the sociology of interaction*. Oxford England: Bobbs-Merrill.

Goleman, D. (1995). *Emotional intelligence*. New York: Bantam Books.

Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books.

Goleman, D. (2001). An EI-based theory of performance. In C. Cherniss & D. Goleman (Eds.), *The emotionally intelligent workplace. How to select for, measure, and improve emotional intelligence in individuals, groups, and organisations* (pp. 27-44). San Francisco: Jossey-Bass.

Goleman, D., McKee, A., & Boyatzis, R. E. (2002). *Primal leadership: Learning to lead with emotional intelligence.* Boston: Harvard Business School Press.

González-Romá, V., Schaufeli, W. B., Bakker, A. B., & Lloret, S. (2006). Burnout and work engagement: Independent factors or opposite poles? *Journal of Vocational Behaviour, 68*, 165-174.

Hakanen, J. J., & Schaufeli, W. B. (2012). Do burnout and work engagement predict depressive symptoms and life satisfaction? A three-wave seven year prospective study. *Journal of Affective Disorders*, 141, 415-424.

Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and engagement among teachers. *Journal of School Psychology, 43*, 495-513.

Hakanen, J., Schaufeli, W.B. & Bakker, A.B. (2003). *Job demands, job resources and their relationships with burnout and engagement among Finnish teachers*. Manuscript in preparation.

Hallberg, U. E., & Schaufeli, W. B. (2006). ”Same same” but different? Can work engagement be discriminated from job involvement and organisational commitment? *European Psychologist, 11,* 119-127.

Harrison, R. (1997). "Why Your Firm Needs Emotional Intelligence," *People Management*, 3(1), 41.

Harter J. K., & Schmidt, F. L. (2008). Conceptual versus empirical distinctions among constructs: Implications for discriminant validity. *Industrial and Organisational Psychology, 1,* 36–39.

Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87,* 268-279.

Harter, J.K., Schmidt, F.L. and Keyes, C.L. (2002) ‘Well-being in the workplace and its relationship to business outcomes: A review of the Gallup studies’, in Keyes, C.L. and Haidt, J. (Eds) *Flourishing: The Positive Person and the Good Life*, 205-224. American Psychological Association, Washington D.C.

Jaros, S. T., Jermier, J. M., Koehler, J. W., & Sincich, T. (1993). Effects of continuance, affective, and moral commitment on the withdrawal process: An evaluation of eight structural equation models. *Academy of Management Journal,* 36**,** 951-995.

Johnson RE, Chang CH, Yang LQ (2010). Commitment and motivation at work: The relevance of employee identity and regulatory focus. *Academic Management Review*, 35, 226-245.

Joseph, D. L., & Newman, D. A. (2010). Emotional intelligence: An integrative meta-analysis and cascading model. *Journal of Applied Psychology, 95* (1), 54-78.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33*(4), 692-724.

Kahn, W. A. (1992). To be fully there: Psychological presence at work. *Human Relations, 45*, 321-349.

Kelley, R., & Caplan, J. (1993). How Bell Labs creates star performers. *Harvard Business Review*, 71, 128–139.

Kerr, R., Garvin, J., Heaton, N., & Boyle, E. (2006). Emotional intelligence and leadership effectiveness. *Leadership and Organisation Development Journal, 27* (4), 265-279.

Klausner, A. (1997). Review of raising your emotional intelligence by Jeanne Segal (Online). Available:

Kunnanatt, J. (2004). Emotional intelligence: The new science of interpersonal effectiveness. *Human Resources Development Quarterly, 15,* 489-495.

Langelaan, S., Bakker, A. B., Schaufeli, W. B., Van Rhenen, W., & Van Doornen, L. J. P. (2006). Do burned-out and work-engaged employees differ in the functioning of the hypothalamic-pituitary-adrenal axis? *Scandinavian Journal of Work Environment and Health, 32,* 339-348.

Lanham, MD: Scarecrow Education.

Larson, E., & Fukami, C. V. (1984). Relationships between worker behaviour and commitment to the organisation and union. Academy of Management Proceedings, 34, 222-226

Law, K. S., Wong, C-S, Huang, G-H., & Li, W. (2008). The effects of emotional intelligence on job performance and life satisfaction for the research and development scientists in China. *Asia Pacific Journal of Management, 25* (1), 51-69.

Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.

Leban, W., & Zulauf, C. (2004). Linking emotional intelligence abilities and transformational leadership styles. *The Leadership & Organisation Development Journal, 25* (7), 554-564.

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organisational psychology* (pp. 1297–1349). Chicago: Rand McNally.

Lord, R. G., De Vader, C. L., & Alliger, G. M. (1986). A meta-analysis of the relation between personality traits and leadership perceptions: An application of validity generalization procedures. *Journal of Applied Psychology*, 71, 402-410

Luthans, Fred (1995), Organisational Behaviour, 7. Baskı, McGraw-Hill Inc., New York. "Mahalli İdare Birlikleri Kanunu", Kanun No. 5355, Resmi Gazete, Tarih: 11.06.2005, Sayı: 25842.

Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organisational Psychology, 1*, 3-30.

Madigan, M., Norton, J. & Testa, I. (1999). The Quest for Work ñ Life Balance.[online]. Rogers Media.

Mäkikangas, Feldt, Kinnunen, & Tolvanen, 2012, Shimazu et al., 2008; Bakker, Nachreiner, et al., 2001, Diamond and Allcorn 1985, cf. Lee & Ashforth, 1996, Durán, Extremera, & Rey, 2004; Montgomery, Peeters, Schaufeli, & Den Ouden, 2003, Henson, 2001,

Martinez, M. N. (1997). The smarts that count. *HR Magazine*, 42 (11), 72-78.

Martinez-Pons, M. (1997). The relation of emotional intelligence with selected areas of personal functioning. *Imagination, Cognition, and Personality*, 17, 3-13.

Maslach, C., Jackson, S. E., & Leiter, M. P. (1997). Maslach Burnout Inventory: Third edition. In C. P. Zalaquett, & R. Wood (Eds.). *Evaluating stress: A book of resources* (pp. 191-218).

Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology,* 52, 397-422.

Mathieu JE, Zajac D (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organisational commitment. *Psychological Bulletin*. 108, 171-194.

May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organisational Psychology*, *77*, 11-37.

Mayer, J.D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D.J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3–31). New York: Basic Books.

Mayer, J.D., Caruso, D.R., & Salovey, P. (2000). Selecting a measure of emotional intelligence: The case of ability scales. In R. Bar-On & J.D.A. Parker (Eds.), *The handbook of emotional intelligence* (pp. 320–342). San Francisco: Jossey-Bass.

Mayer, J.D., Salovey, P. and Caruso, D. (2000). Emotional Intelligence meets traditional standards for an intelligence. *Intelligence,* 27(4), 267-298.

Mayer, R. C., and Schoorman, F. D. (1992) Predicting participation and production outcomes through a two-dimensional model of organisational commitment. *Academy of Management Journal*, 35, 671-84.

Melamed, S., Shirom, A., Toker, S., Berliner, S., & Shapira, I. (2006). Burnout and risk of cardiovascular disease: Evidence, possible causal paths, and promising research directions. *Psychological Bulletin, 132,* 327-353.

Meyer J, Becker T, Vandenberghe C (2004). Employee commitment and motivation: A conceptual analysis and integrative model. *Journal of Applied Psychology*, 89, 991-1007.

Meyer, B.B., Fletcher, T.B. & Parker, S.J. (2004). Enhancing emotional intelligence in the health care environment: An exploratory study. *The Health Care Manager,* 23(3), 225-234.

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organisational commitment. *Human Resource Management Review,* 1, 61–89.

Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application.* Thousand Oaks, CA: Sage.

Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review, 11,* 299–326.

Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsksy, L. (2002). Affective, continuance, and normative commitment to the organisation: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behaviour, 61,* 20-52.

Mignonac, K., Herrbach, O., & Gond, J. P. (2003). *L'intelligence émotionnelle en enterprise*. Onnaing: e-theque.

Mikolajczak, M., Nelis, D., Hansenne, M., & Quoidbach, J. (2008). If you can regulate sadness, you can probably regulate shame: Associations between trait emotional intelligence, emotion regulation and coping efficiency across discrete emotions. *Personality and Individual Differences, 44,* 1356-1368.

Mowday, R. T., Steers, R. M.,&Porter, L.W. (1979). The measurement of organisational commitment. *Journal of Vocational Behaviour,* 14**,** 224-247.

Mowday, R., Porter, L. and Durbin, R. (1974). Unit performance, situational factors and employee attitudes in spatially separated work units. *Organisational Behaviour and Human Performance*, 12, 231-248.

Mullins, L. (1999). Management and Organisational Behaviour, 5th Edition. Portsmouth: Pitman Publishing.

Myers, D.G. (1998). *Psychology*, 5th Ed. NY: Worth Publishers

Nelson, R. (1999). Low-Cost ways to build employee commitment. Inc.com

Newstrom, J. W. and Davis, K. (2002). Organisational Behaviour. "Human Behaviour at Work." 11th Edition: New Delhi Tata Mcgraw - Hill Publishing Company Limited.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.

O'Reilly, C. & Chatman, J. (1986). Organisational commitment and psychological attachment: the effects of compliance, identification, and internalization on prosocial behaviour. *Journal of Applied Psychology, 71*(3), 492-499.

Obeng, K., & Ugboro, I. (2003). Organisational commitment among public transit employees: an assessment study. Journal *of the Transportation Research Forum*, 57(2), 83- 98.

Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organisational citizenship behaviour. *Personnel Psychology, 48*, 775–802.

Palmer, P.N. and Jansen, C.A. (2004). Emotional Intelligence as an Important Attribute of Transformational Leadership. Paper Presented at the Southern African Institute of Management Scientist Annual Conference, 17-29 September 2004, Cape Town.

Pareek, U. (2004), Understanding Organisational Behaviour, Oxford University Press, New Delhi.

Penley, L. E. & Gould, S. (1988). Etzioni's model of organisational involvement: A perspective for understanding commitment to organisations, *Journal of Organisational Behaviour*, 9, 43-59.

Pool S, Pool B (2007). A management development model: measuring organisational commitment and its impact on job satisfaction among executives in a learning organisation. Journal of Management Divisions, 26, 353-369.

Porter, L. W., Steers, R. M., Mowday, R. T. & Boulian, P. V. (1974). Organisational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology, 59*(5), 603-609.

Ramsay, C. S. (2006, May). Engagement at Intuit: It's the people. In J. D. Kaufman (Chair), *Defining and measuring employee engagement: Old wine in new bottles?* Symposium conducted at the Society for Industrial and Organisational Psychology 21st Annual Conference, Dallas, Texas.

Ramsay, C. S., & Finney, M. I. (2006). *Employee engagement at Intuit.* Mountain View CA: Intuit Inc.

Randall, D. M., Fedor, D. B., & Longenecker, C. O. (1990). The behavioural expression of organisational commitment. *Journal of Vocational Behaviour,* 36, 210-224.

Richman, A. (2006) Everyone wants an engaged workforce how can you create it? *Workspan,* 49, 36-39.

Riggio, R. E., Murphy, S. E., & Pirozzolo, F. J. (Eds.). (2002). *Multiple intelligences and leadership*. Mahwah, NJ: Erlbaum

Robinson, D., Perryman, S. and Hayday, S. (2004) *The Drivers of Employee Engagement*. Brighton, Institute for Employment Studies.

Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly, 46,* 655-684.

Rozell, E., Pettijohn, C., & Parker, R. (2004). Customer-oriented selling: Exploring the roles of emotional intelligence and organisational commitment. *Psychology and Marketing, 21,* 405-424.

Sagie, A. (1998). Employee absenteeism, organisational commitment, and job satisfaction: Another look. *Journal of Vocational Behaviour*, 52, 156-171.

Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology, 21,* 600-619.

Salanova, M. M., & Schaufeli, W. B. (2008). A cross-national study of work engagement as a mediator between job resources and proactive behaviour. *The International Journal of Human Resource Management*, *19*, 116-131.

Salovey, P., & Mayer, J.D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, *9*, 185-211.

Salovey, P., & Sluyter, D. J. (Eds.). (1997). *Emotional development and emotional intelligence: Educational implications.* New York: Basic Books.

Salovey, P., Bedell, B. T., Detweiler, J. B., & Mayer, J. D. (2000). Current directions in emotional intelligence research. In M. Lewis & J. M. Haviland-Jones (eds.), *Handbook of emotions*. New York: Guilford Press.

Salovey, P., Bedell, B.T., Detweiler, J. B., & Mayer, J. D. (1999). Coping intelligently: Emotional intelligence and the coping process. In C.R. Snyder (Ed.), *Coping: The psychology of what works* (pp. 141–164). New York: Oxford Psychology Press.

Salovey, P., Woolery, A., & Mayer, J.D. (2001). Emotional intelligence: Conceptualization and measurement. In G. Fletcher & M.S. Clark (Eds.), *The Blackwell handbook of social psychology (Volume 2: Interpersonal Processes)* (pp. 279–307). Oxford: Blackwell.

Schachter, S. and Singer, J. E. (1962) Cognitive, social and physiological determinants of emotional states, *Psychological Review*, *69*, 379-399.

Schaufeli, W. B., & Bakker, A. B. (2003). *Test manual for the Utrecht Work Engagement Scale*. Unpublished manuscript, Utrecht University, the Netherlands. Retrieved 2012, from: http://www.schaufeli.com.

Schaufeli, W. B., & Bakker, A. B. (2010). Defining and measuring work engagement: Bringing clarity to the concept. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 10-24). New York: Psychology Press.

Schaufeli, W. B., & Salanova, M. (2007). Efficacy or inefficacy, that's the question: Burnout and work engagement, and their relationships with efficacy beliefs. *Anxiety, Stress & Coping: An International Journal*, *20*(2), 177-196.

Schaufeli, W. B., & Salanova, M. (2011). Work engagement: On how to better catch a slippery concept. *European Journal of Work and Organisational Psychology, 20,* 39-46.

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement, 66,* 701-716.

Schaufeli, W. B., Salanova, M., Gonzalez-Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies, 3,* 71-92.

Schaufeli, W.B. and Bakker, A.B. (2004) Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organisational Behaviour*, 25, 293-315.

Scholl, R. W. (1981). Differentiating commitment from expectancy as a motivating force. *Academy of Management Review,* 6**,** 589–599.

Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, 25, 167-177.

Seligman, M. E. P. (2002). Positive psychology, positive prevention, and positive therapy. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 3–9). New York: Oxford University Press.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist,* 55, 5-14.

Shaw JD, Delery JE, Abdulla MHA (2003). Organisational commitment and performance among guest workers and citizens of an Arab country. J. Bus. Res., 56: 1021–1030.

Shaw, K. (2005) 'An engagement strategy process for communicators', *Strategic Communication Management,* 9, (3), 26-29.

Shimazu, A., Schaufeli, W. B., Kosugi, S., Suzuki, A., Nashiwa, H., Kato, A., Kitaoka-Higashiguchi, K. (2008). Work engagement in Japan: Validation of the Japanese version of the Utrecht Work Engagement Scale. *Applied Psychology: An international review, 57*, 510-523.

Shore, L.M., & Wayne, S.J. (1993). Commitment and employee behaviour: Comparison of affective commitment and continuance commit- ment with perceived organisational support. *Journal of Applied Psychology,* 78, 774-780.

Sjoberg, L. (2001). Emotional intelligence: A psychometric analysis. *European Psychologist, 6*, 79–95.

Slaski, M. & Cartwight, S. (2003). Emotional intelligence training and its implications for stress, health and performance. *Stress and Health19, 233-139.*

Slaski1, M., & Cartwright, S. (2002). Health, performance and emotional intelligence: An exploratory study of retail managers. *Stress and Heath*, *18*, 63–68.

Somers, M. J., & Casal, J. C. (1994). Organisational commitment and whistle-blowing. Group & Organisation Management, 19, 270-284

Steers, R. M. (1977). Antecedents and outcomes of organisational commitment. *Administrative Science Quarterly, 22*, 46-56.

Storm, K., & Rothmann, S. (2003). A psychometric analysis of the Utrecht Work Engagement Scale in the South African police service. *SA Journal of Industrial Psychology, 29,* 62–70.

Suliman, A. M. (2007). Emotional intelligence at work: links to conflict and innovation. *Employee Relations, 29* (2), 208-220.

Sy, T., & Coté, S. (2004). Emotional intelligence A key ability to succeed in the matrix organisation. *Journal of Management Development, 23* (5), 437-455.

Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organisational commitment, turnover intention, and turnover: Path analysis based on meta-analytic findings. *Personnel Psychology,* 46(2), 342-346.

Van Doornen, L. J. P., Houtveen, J. H., Langelaan, S., Bakker, A. B., Van Rhenen, W., & Schaufeli, W. B. (2009). Burnout versus work engagement in their effects on 24-hour ambulatory monitored cardiac autonomic function. *Stress and Health, 25,* 323–331.

Van Jaarsveld, 2003). (Van Jaarsveld, P. 2003. The Heart of a Winner. Wellington: Paarl Print.

Wasti, S. A. (2004, April). Commitment profiles: The combined influence of organisational commitment forms on job outcomes. Paper presented at the annual meeting of the Society for Industrial and Organisational Psychology, Chicago, IL.

Wechsler, D. (1958). *The measurement and appraisal of adult intelligence*. (4th ed.). Baltimore, MD: The Williams & Wilkins Company.

Welch, J., & Welch, S. (2006, May 8). Ideas the Welch way: How healthy is your company? *BusinessWeek*, 126.

Wong CS, Law KS (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *Leadership Q*uarterly, 13, 243-274.

Yang FH, Chang CC (2008). Emotional labor, job satisfaction and organisational commitment amongst clinical nurses: A questionnaire survey. International Journal of Nursing Studies., 45, 879-887.

Zeidner, M., & Saklofske, D. S. (1996). Adaptive and maladaptive coping. In M. Zeidner & N. S. Endler (eds.), *Handbook of coping* (pp. 505–531). New York: John Wiley & Sons.

CHAPTER 4

EMOTIONAL INTELLIGENCE OF MENTAL HEALTHCARE EMPLOYEES

Contents ..... Page No.

4.1 Introduction

Emotional intelligence has assumed great prominence and importance in the contemporary culture and life. Scholars, practitioners, academicians, business analysts and managers strongly agree with the notion of emotions and its understanding or controlling cause for the ultimate success or failure of any endeavour initiated by human capital. Emotional intelligence is an important predictor of key organisationūal outcomes including job satisfaction (Daus and Ashkanasy, 2005). According to the theory of emotional intelligence, a person who is able to understand and is aware of one's own feelings, and controls stress, negative emotions (Kafetsios and Zampetakis, 2008), and feeling of frustration, (Sy et al., 2006), can certainly have better relationships with colleagues and supervisors, which ends in increasing job satisfaction (Wong and Law, 2002), organisational commitment (Sy et al., 2006) and better job performance (Kafetsios and Zampetakis, 2008).

The objectives, research questions and methods of the study were outlined in the previous chapters and this chapter deals with the analysis and interpretation of the collected data. The part that deals with analysis and interpretation of the data is considered as the heart of any research as it focus on breaking the data into meaningful sections using advanced statistical techniques and tools in order to answer research questions and solve research problems. The very first objective of the study i.e. assessing the emotional intelligence level of mental healthcare employees in Kerala is analysed and interpreted in this chapter. The chapter examines and assesses the emotional intelligence level of mental healthcare professionals in Kerala based on the Survey data to answer the prominent research questions:

- What is the Emotional Intelligence level of mental healthcare employees in Kerala?
- What effect demographic variables have on Emotional Intelligence?

The data for the study was collected from mental healthcare employees working in mental healthcare institutions of Kerala both from public and private sectors. The employees selected for the study comprise psychiatrists, psychologists, social workers and nurses working in public and private mental healthcare institutions. In public sector employees were selected from three government mental health centres at Thiruvananthapuram, Thrissur and Kozhikode. In private sector employees were selected from twenty two private mental healthcare institutions listed and licensed by Kerala State Mental Health Authority (KSMHA).The sample unit was employees from mental healthcare sector of Kerala which included doctors and nurses from both public and private sectors.

Wong and Law Emotional Intelligence Scale (WLEIS), was used in this study to assess the emotional intelligence of mental healthcare employees. It is a well known conceptually established self rating scale widely used throughout the world for academic and non academic purposes. Chi-Sum Wong and Kenneth S. Law developed this scale based on the four dimensional definition of emotional intelligence as defined by Davies et al. Emotional intelligence is measured under four major constructs namely, Self Emotion Appraisal, Others Emotion Appraisal, Regulation of Emotion and Use of Emotion. The scale was validated by conducting exploratory and confirmatory factor analyses using SPSS. The factor structure, Cronbach's alpha values, content validity, convergent validity and discriminant validity of the scale are discussed in detail in the chapter.

The data was analysed and hypotheses were tested using IBM SPSS Statistics 20. Statistical tests like descriptive statistics, T – Test, ANOVA and Post Hoc were used for analysing and interpreting the data. Levels of Emotional Intelligence, Self Emotion Appraisal, Others Emotion Appraisal, Use of Emotion and Regulation of Emotion of respondents were measured based on the mean scores obtained on emotional intelligence scale. The scores obtained on subscales of self emotion appraisal, others' emotion appraisal, use of emotion and regulation of emotion were calculated separately and total emotional intelligence score was calculated by summing up these scores obtained on four subscales. The scores on

four EI subscales range from 4 to 28 and the total score of EI range from 16 to 112. Emotional intelligence of respondents are classified on three major levels as low level, medium level and high level based on tertiary deviation of total score. The first 1/3 of the score is considered as low level, the second 1/3 of the score is considered as the medium level and the third one third is considered as the high level. The table 4.1 depicts the cut off scores for identifying the emotional intelligence levels:

Table 4.1

Cut off Scores of the Emotional Intelligence Scale

Scales	Low Level	Medium Level	High Level
Self Emotion Appraisal Scale	4.00 – 12.00	12.01 – 20.00	20.01 – 28.00
Others' Emotion Appraisal Scale	4.00 – 12.00	12.01 – 20.00	20.01 – 28.00
Use of Emotion Scale	4.00 – 12.00	12.01 – 20.00	20.01 – 28.00
Regulation of Emotion Scale	4.00 – 12.00	12.01 – 20.00	20.01 – 28.00
Overall Emotional Intelligence	16.00 – 48.00	48.01 – 80.00	80.01 – 112.00

Source: Survey data

Based on the major topics analysed and evaluated, the chapter is divided into six sections for easy understanding of the interpreted data. These six sections include:

- Section A: Validation of the Emotional Intelligence Scale
- Section B: Self Emotion Appraisal (SEA) of mental healthcare employees
- Section C: Others Emotion Appraisal (OEA) of mental healthcare employees
- Section D: Use of Emotion (UOE) of mental healthcare employees
- Section E: Regulation of Emotion (ROE) of mental healthcare employees
- Section F: Total Emotional Intelligence (EI) of mental healthcare employees

4.2 Demographic Profile of the Respondents

Out of the 285 respondents, 122 respondents are males and 163 respondents are females. 57% of the respondents are married and 34% are single. Respondents

are consisted of different occupational status as nurse (196), psychiatrists (44), psychologists (19) and social worker (26). Respondents from private institutions occupy 73% and 77 respondents belongs to public sector. Based on experience respondents are divided into three categories as low experienced (132), medium experienced (105) and high experienced (48) (Table 4.2).

Table 4.2

Demographic Profile of Respondents

Category	Status	Frequency	Percent	Total
Gender	Male	122	42	285
	Female	163	57	
Marital status	Single	98	34	285
	Married	187	65	
Occupation	Nurse	196	68	285
	Psychiatrist	44	15	
	Psychologist	19	6	
	Social Worker	26	9	
Organisation	Public Sector	77	27	285
	Private Sector	208	73	
Work Experience	Low experienced	132	46	285
	Moderately experienced	105	36	
	Highly experienced	48	16	

Source: Survey data

4.3 Section A: Validation of the Emotional Intelligence Scale

Emotional Intelligence is the ability to assess, appraise, monitor and control emotions in self and others. Scholars and academicians around the world have developed a plenty of assessing tools and rating scales to measure the emotional intelligence levels that can be used for academic and business purposes. Most of the scales are developed based either on ability theory of emotional intelligence or trait theory. In this study the Wong and Law Emotional Intelligence Scale (WLEIS) was

used to assess the emotional intelligence of mental healthcare employees. A lot of academic studies have used WLEIS to measure the emotional intelligence in organisational settings and it has been proved to be very apt tool for assessing emotional intelligence in organisational studies. It is a well known conceptually established self rating scale widely used throughout the world for academic and non academic purposes. Chi-Sum Wong and Kenneth S. Law developed this scale based on the four dimensional definition of emotional intelligence as defined by Davies et al. Emotional intelligence is measured under four major constructs namely, Self Emotion Appraisal, Others Emotion Appraisal, Regulation of Emotion and Use of Emotion . Wong and Law Emotional Intelligence Scale was validated and factor structure, factor loadings and different scale validities were once again confirmed for this study by conducting exploratory and confirmatory factor analyses using SPSS and Amos software packages.

4.3.1 Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is a multivariate statistical technique used to reduce a given data to a smaller set of summary variables. It is used to explore the underlying theoretical structure of the phenomena studied. It identifies the structure of the relationship between a variable and respondents in a dataset and provides a factor structure by grouping the variables based on strong correlations. Emotional intelligence scale was subjected to factor analysis in order to explore and identity the naturally occurring factors of emotional intelligence. All sixteen statements under four subscales of Wong and Law Emotional Intelligence Scale (WLEIS) were subjected to the factor analysis. Primarily the two tests of Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett Test of Sphericity was done to know and verify the adequacy and appropriateness of dataset for factorisation. The Kaiser-Meyer-Olkin measure of sampling adequacy is an index used for comparing the magnitude of observed correlation coefficients to the magnitude of the partial correlation coefficients. Usually KMO score vary between zero and one where zero indicates the largeness of partial correlation in relation to the sum of correlation that makes factorisation impossible. If the value is close to

one it indicates that pattern of correlation are relatively compact and factorisation can be conducted for extracting distinct and reliable factors.

Table 4.3

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.910
Bartlett's Test of Sphericity	**Approx. Chi-Square**	3935.165
	Df	120
	Sig.	.000

Source: Survey data

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was found to be excellent (0.910) which is greater than 0.5 (Kaiser, 1974) and the Bartlett Test of Sphericity (BTS) was significant ($p < 0.001$) as the Chi Square value is 3935.165 with 120 degrees of freedom (Table 4.3). As the value of the test statistic for sphericity is large and the associated significance level is small, it is seemed that the population correlation matrix is not an identity. It clearly provides support and freedom for factorisation and doing further analyses.

As the data was found adequate for factorisation, factor analysis was conducted using exploratory factor analysis in SPSS. Principal Component Analysis method was used for extraction and Varimax with Kaiser Normalization method was used for rotation in this study. The rotation was converged in five iterations. Table 4.4 provides the details of each factor in emotional intelligence scale along with the items contributing to it and the component loadings for each item.

Table 4.4

Rotated Component Matrix

S. No.	Statements	Components			
		1	2	3	4
A1	I always know whether or not I am happy	.967			
A2	I really understand what I feel	.965			
A3	I have a good sense of why I have certain feelings most of the time.	.956			
A4	I have good understanding of my own emotions	.939			
B1	I can always calm down quickly when I am very angry.		.788		
B2	I am quite capable of controlling my own emotions.		.754		
B3	I have good control of my own emotions.		.708		
B4	I am able to control my temper and handle difficulties rationally.		.694		
C1	I am sensitive to the feelings and emotions of others.			.861	
C2	I have good understanding of the emotions of people around me.			.707	
C3	I am a good observer of others' emotions.			.694	
C4	I always know my friends' emotions from their behaviour.			.658	
D1	I always set goals for myself and then try my best to achieve them.				.777
D2	I am a self-motivated person.				.706
D3	I always tell myself I am a competent person.				.695
D4	I would always encourage myself to try my best.				.612
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 5 iterations.					

Source: Survey data

The table 4.4 illustrates the Rotated Component Matrix. All variables with factor loadings above 0.60 were selected for the study. After performing Varimax Rotation Method in Kaiser Normalisation, the first factor named as Self Emotion Appraisal comprised of four items. These items include A1, A2, A3 and A4. In first factor the item A1 showed more (.967) loading followed by A2 (.965). The loadings of A3 and A4 are .956 and .939 respectively. The second factor named Others' Emotion Appraisal comprised of four items as B1, B2, B3 and B4. Among these four items B1 (.788) showed the highest loading and B4 (.694) showed the lowest loading. The third factor named as Use of Emotion also included four items namely C1, C2, C3 and C4 in which C1 (.861) showed more loading and C4 (.658) showed the less loading. In Regulation of Emotion, the fourth factor, four items D1, D2, D3 and D4were selected. Among these four items in fourth factor D1 (.777) obtained highest loading while D4 (.612) held the lowest loading.

4.3.2 Factor Name, Variance and Reliability

The rotated component matrix explains that all statements were loaded as per the original adopted Wong and Law Emotional Intelligence Scale. The first four statements were grouped under the component of self emotional appraisal, the next four statements under the component of others' emotional appraisal, the next four under the component of use of emotion and the last four statements under the component of regulation of emotion. The explained variance and reliability of rotated factors are illustrated in the below table as obtained from the output of factor analysis (Table 4.5). It clearly indicates that all extracted factors have adequate reliability as the Cronbach's alpha is above 0.70 for all four factors.

Table 4.5

Factor Name, Variance and Reliability

Factor	Variance	Reliability (Cronbach's Alpha)	Factor Name
1	24.404	0.987	**Self Emotion Appraisal**
2	17.681	0.820	**Regulation of Emotion**
3	16.141	0.833	**Others' Emotion Appraisal**
4	15.731	0.810	**Use of Emotion**

Source: Survey data

4.3.3 Confirmatory Factor Analysis for Emotional Intelligence Scale

As exploratory factor analysis could extract four factors as explained in original scale the next step is to conduct a confirmatory factor analysis to finalise and confirm the 'Emotional Intelligence' construct identified. The data for analysis were found free from missing values and outliers.

4.3.4 Measurement model of 'Emotional Intelligence'

The measurement model of emotional intelligence along with its four factors as self emotion appraisal, others' emotion appraisal, use of emotion, regulation of emotion is given below.

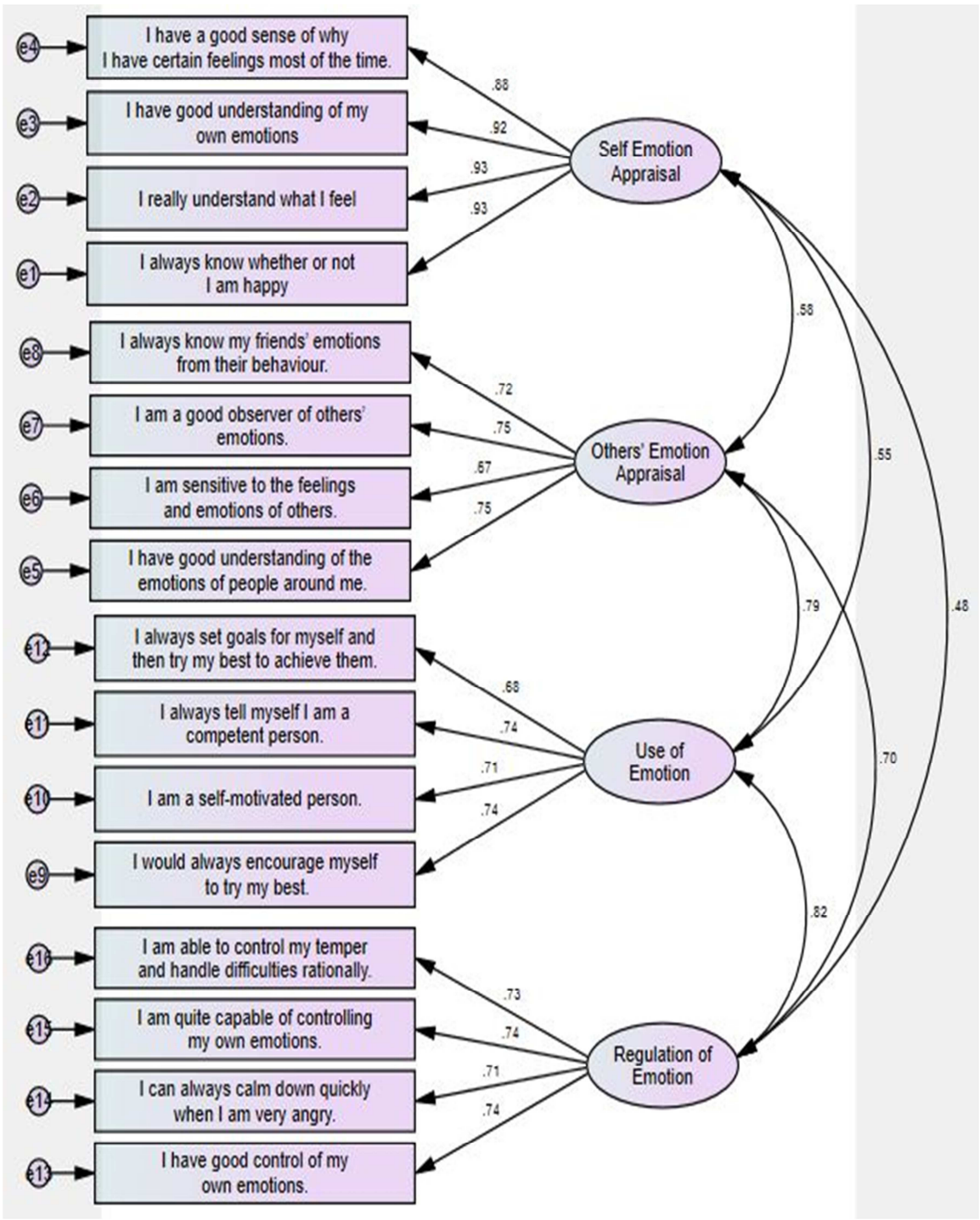


Fig 4.1: Measurement Model for 'Emotional Intelligence'

The measurement model for emotional intelligence (Fig 4.1**)** was tested by a Confirmatory Factor Analysis by using Amos 21. This measurement model was developed to assess the emotional intelligence of mental healthcare employees related with certain demographic factors as gender, marital status, organisation, occupation and experience. The reliability of the scale developed was confirmed through Cronbanch's alpha value method. The structural equation model using Amos provides several indices of fit like measure of absolute fit, comparative fit, and parsimonious fit etc. The table 4.6 provides the major model fit indices and its obtained values for emotional intelligence model.

Table 4.6

Model fit Indices

Model fit Indices	**Values**	
	Obtained	**Recommended**
CMIN / DF	0.359	<5
RMR	0.05	<0.05
GFI	0.922	>0.9
AGFI	0.931	>0.9
PGFI	0.882	>0.9
NFI	0.921	>0.9
RFI	0.922	>0.9
IFI	0.926	>0.9
TLI	0.939	>0.9
CFI	0.942	>0.9
RMSEA	0.031	<0.08

Source: Survey data

Table 4.6 shows the different model fit indices of the confirmatory factor analysis. Usually a measurement model with model fit indices of greater than 0.09 and Root Mean Square Error of Approximation (RMSEA) less than 0.08 is considered to be close fit with the dataset. The measurement model of Emotional

Intelligence was found to be good fitting model with recommended indices. All the paths shown in the model are significant as critical ratios are above 1.96.

4.3.5 Validation of the Emotional Intelligence Scale

After the Emotional Intelligence instrument was developed it was subjected for validation to ensure that the instrument really measure Emotional Intelligence construct. For any measuring instrument validity and reliability are the two critical criteria that verify the degree to which a measuring instrument measures what is supposed to measure. Various validity tests were performed to assess the goodness of measures of the instrument. Validation tests such as convergent and discriminant validities were conducted.

Convergent Validity

Convergent validity tests establish whether responses to the questions are sufficiently correlated with the respective latent variables. Convergent validity is usually assessed based on the comparison of loadings calculated through a non-confirmatory analysis with a fixed value (Ketkar, Kock, Parente & Verville, 2012). Two criteria are recommended as the basis for concluding that a measurement model has acceptable convergent validity: p values associated with the loadings should be lower than 0.05 and loadings for indicators of all respective latent variables must be 0.5 or above for the convergent validity of a measure to be acceptable (Hair et al., 2009).

Table 4.7

Factor loadings and p values for "Emotional Intelligence"

S. No.	Statements	Estimate	P value
A1	I always know whether or not I am happy ← Self Emotion Appraisal	.926	<0.001
A2	I really understand what I feel ← Self Emotion Appraisal	.929	<0.001
A3	I have a good sense of why I have certain feelings most of the time ← Self Emotion Appraisal	.918	<0.001
A4	I have good understanding of my own emotions ← Self Emotion Appraisal	.876	<0.001
B1	I can always calm down quickly when I am very angry ← Others' Emotion Appraisal	.752	<0.001
B2	I am quite capable of controlling my own emotions ← Others' Emotion Appraisal	.668	<0.001
B3	I have good control of my own emotions ← Others' Emotion Appraisal	.755	<0.001
B4	I am able to control my temper and handle difficulties rationally ← Others' Emotion Appraisal	.716	<0.001
C1	I am sensitive to the feelings and emotions of others ← Use of Emotion	.738	<0.001
C2	I have good understanding of the emotions of people around me ← Use of Emotion	.710	<0.001
C3	I am a good observer of others' emotions ← Use of Emotion	.740	<0.001
C4	I always know my friends' emotions from their behaviour ← Use of Emotion	.684	<0.001
D1	I always set goals for myself and then try my best to achieve them ← Regulation of Emotion	.743	<0.001
D2	I am a self-motivated person ← Regulation of Emotion	.706	<0.001
D3	I always tell myself I am a competent person ← Regulation of Emotion	.743	<0.001
D4	I would always encourage myself to try my best ← Regulation of Emotion	.728	<0.001

Source: Survey data

The output clearly indicates that the factor loadings associated with the latent variables ranges between 0.668 and 0.929 as shown in Table 4.7. Hence it is reasonable to assume that the measurement model for the construct of Emotional Intelligence has acceptable convergent validity.

Discriminant Validity

Discriminant validity tests verify whether responses from the respondents to the questions are either correlated or not with other latent variables. A measurement model has acceptable discriminant validity if the square root of the average variance extracted (AVE) for each latent variable is higher than any of the correlations between the latent variable under consideration and any of the other latent variables in the measurement model (Fornell & Larcker, 1981).

Table 4.8

Average Variance Extracted and Inter Construct Correlation

Factors	AVE	Correlation	
Self Emotion Appraisal	0.92	Self Emotion Appraisal ↔ Others' Emotion Appraisal	0.58
Others' Emotion Appraisal	0.72	Self Emotion Appraisal ↔ Use of Emotion	0.55
Use of Emotion	0.72	Self Emotion Appraisal ↔ Regulation of Emotion	0.48
Regulation of Emotion	0.73	Others' Emotion Appraisal ↔ Use of Emotion	0.79
		Others' Emotion Appraisal ↔ Regulation of Emotion	0.70
		Use of Emotion ↔ Regulation of Emotion	0.82

Source: Survey data

Discriminant validity was confirmed by examining correlations among the constructs. As a rule of thumb, a correlation of 0.85 degree or above indicates poor discriminant validity in structural equation modelling (David 1998). In Emotional Intelligence construct none of the correlations among variables were found to be

above 0.85 (Table 4.8) and adequate discriminant validity was suggested for the measurement model.

In addition, to confirm discriminant validity, the inter construct correlation were calculated and compared with average variance extracted. In this measurement model all variance extracted (AVE) estimates were larger than the squared inter construct correlation estimates (Table 4.8) and the discriminant validity was confirmed.

Normality

For effective analyses and accurate results most of the statistical methods and tools require the assumption that the variables observed are normally distributed. In multivariate statistics, the assumption is that the combination of variables follows a multivariate normal distribution. Since there is no direct test for multivariate normality, we generally test each variable individually and assume that they are multivariate normal if they are individually normal, though this may not be necessarily the case. In SEM model, estimation and testing are usually based on the validity of multivariate normality assumption, and lack of normality will adversely affect goodness-of-fit indices and standard errors (Baumgartner and Homburg 1996; Hulland et al 1996; Kassim 2001). The univariate normality of the variables was tested using Kolomogorov- Smirnov test with Lillefors significance correction.

Table 4.9

One - Sample Kolmogrov - Smirnov Test

S. No.	Statements	N	Mean	Std. Deviation	Sig.
A1	I have a good sense of why I have certain feelings most of the time.	285	4.79	.755	0.000
A2	I have good understanding of my own emotions	285	4.80	.732	0.000
A3	I really understand what I feel	285	4.79	.760	0.000
A4	I always know whether or not I am happy	285	4.78	.761	0.000
B1	I always know my friends' emotions from their behaviour.	285	4.79	.857	0.000
B2	I am a good observer of others' emotions.	285	4.82	.915	0.000
B3	I am sensitive to the feelings and emotions of others.	285	4.83	.939	0.000
B4	I have good understanding of the emotions of people around me.	285	4.73	.991	0.000
C1	I always set goals for myself and then try my best to achieve them.	285	4.61	1.027	0.000
C2	I always tell myself I am a competent person.	285	4.51	1.073	0.000
C3	I am a self-motivated person.	285	4.53	1.033	0.000
C4	I would always encourage myself to try my best.	284	4.57	1.076	0.000
D1	I am able to control my temper and handle difficulties rationally.	285	4.65	.883	0.000
D2	I am quite capable of controlling my own emotions.	285	4.58	.918	0.000
D3	I can always calm down quickly when I am very angry.	285	4.60	.815	0.000
D4	I have good control of my own emotions.	285	4.55	.912	0.000

Source: Survey data

The results of the Kolomogorov- Smirnov test with Lillefors significance correction as given in table 4.9 revealed that none of the variables are normally distributed.

Statisticians and researchers usually use skewness and kurtosis tests for assuming the normality of certain variables. Skewness refers to the symmetry or no symmetry of a distribution whereas kurtosis relates to the peakedness of a distribution. A distribution is said to be normal when the values of skewness and kurtosis are equal to zero (Tabachnick and Fidell; 2001). However, there are few clear guidelines about how much non-normality is problematic. It is suggested that absolute values of univariate skewness indices greater than 3.0 seem to describe extremely skewed data sets (Chou and Bentler 1995). In kurtosis a kurtosis index greater than 10.0 is considered as problematic.

Table 4.10

Skewness and Kurtosis

S. No.	Statements	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
A1	I have a good sense of why I have certain feelings most of the time.	.575	.144	.924	.288
A2	I have good understanding of my own emotions	.609	.144	.881	.288
A3	I really understand what I feel	.089	.144	2.373	.288
A4	I always know whether or not I am happy	.195	.144	1.424	.288
B1	I always know my friends' emotions from their behaviour.	-.365	.144	.516	.288
B2	I am a good observer of others' emotions.	.279	.144	.127	.288
B3	I am sensitive to the feelings and emotions of others.	-.267	.144	.088	.288
B4	I have good understanding of the emotions of people around me.	.024	.144	.018	.288
C1	I always set goals for myself and then try my best to achieve them.	-.350	.144	-.552	.288
C2	I always tell myself I am a competent person.	-.126	.144	-.726	.288
C3	I am a self-motivated person.	-.206	.144	-.667	.288

S. No.	Statements	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
C4	I would always encourage myself to try my best.	-.200	.145	-.705	.288
D1	I am able to control my temper and handle difficulties rationally.	-.171	.144	.186	.288
D2	I am quite capable of controlling my own emotions.	-.149	.144	-.177	.288
D3	I can always calm down quickly when I am very angry.	-.236	.144	-.022	.288
D4	I have good control of my own emotions.	-.400	.144	-.461	.288

Source: Survey data

The results (table 4.10) reveal that all the variables in this model fall under the kurtosis value of 10 and Skewness value of 3. Thus it can be inferred that the kurtosis and skewness values were not problematic in this study and parametric test can be used for analysis purposes.

4.4 Section B: Self Emotion Appraisal of Mental Healthcare Employees

Self Emotion Appraisal (SEA) is the first dimension in the four dimensional definition of emotional intelligence as propounded by Davies. Chi-Sum Wong and Kenneth S. Law developed their popular emotional intelligence scale based on this notion. Self emotion appraisal refers to the ability of an individual or employee to understand, appraise and express emotions in themselves. The information collected from self emotion appraisal is further used for managing and regulating their emotions.

Mental healthcare employees in Kerala (n= 285) were found to be high level in self emotion appraisal. The mean score of self emotion appraisal dimension was 20.11 (S.D= 2.77) (table 4.11)

Table 4.11

SEA of Mental Healthcare Employees

SEA of Mental Healthcare Employees					
Dimension	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
SEA	285	15.00	27.00	20.11	2.77
Valid N (listwise)	285				

Source: Survey data

4.4.1 Category wise Self Emotion Appraisal of mental healthcare employees

Self emotion appraisal level of mental healthcare employees in each category was calculated separately. The scores obtained for each category is shown in Table 4.12.

Table 4.12

Category Wise SEA of Mental Healthcare Employees

Category	Status	N	Mean	SD
Gender	Male	122	19.12	2.33
	Female	163	20.85	2.85
Marital status	Single	98	18.20	1.33
	Married	187	21.11	2.81
Occupation	Psychiatrist	44	19.50	2.62
	Psychologist	19	20.89	2.57
	Social Worker	26	19.19	3.07
	Nurse	196	20.29	2.75
Organisation	Public Sector	77	20.55	3.02
	Private Sector	208	19.94	2.67
Work Experience	Low experienced	132	18.63	1.63
	Moderately experienced	105	19.88	1.93
	Highly experienced	48	24.66	1.88

Source: Survey data

SEA scores given in table 4.12, clearly indicate that mental healthcare employees in all categories are at medium or high level in appraising the self emotions. In gender category male employees (M = 19.12, SD = 2.33) possessed a medium level of self emotion appraisal and female employees (M = 20.85, SD = 2.85) scored a high level. In the category of marital status unmarried employees (M = 18.20, SD = 1.33) scored a medium level and married employees (M = 21.11, SD = 2.81) scored a high level of self emotion appraisal skill. In occupation category psychologists (M = 20.89, SD = 2.57) and nurses (M = 20.29, SD = 2.75) scored a high level and psychiatrists (M = 19.50, SD = 2.62), social workers (M = 19.19, SD = 3.07) scored a medium level. In the category of organisation public sector employees (M = 20.55, SD = 3.02) scored high and private sector employees (M = 19.94, SD = 2.67) scored medium. Based on experience, highly experienced employees (M = 24.66, SD = 1.88) scored high level while low experienced (M = 18.63, SD = 1.63) and moderately experienced employees (M = 19.88, SD = 1.93) scored a medium level of self emotion appraisal skill. The highly experienced employees scored the highest in self emotion appraisal scale while the unmarried employees scored the lowest among all employee categories.

4.4.2 Comparisons of SEA of Mental Healthcare Employees Based on Demographics

The mean scores of self emotion appraisal (SEA) of mental healthcare employees were compared based on the major five demographic factors explored in the study. These demographic factors include gender, marital status, occupational status, organisation and work experience. Statistical tests like T test, ANOVA and Post Hoc tests were used to test the hypotheses.

Gender based comparison:

The self emotion appraisal skill of mental healthcare employees was examined based on their gender. T test was used to assess the mean differences in self emotion appraisal based on gender. As per T test results shown in table 4.13, the self emotion appraisal skill of male employees (M = 19.12, SD = 2.33) and female

employees (M = 20.85, SD = 2.85) differ significantly; t (283) = -5.614, p = <0.001. Female employees scored a high level of self emotion appraisal while male employees scored a medium level. Null hypothesis was rejected as p value is <0.5 and significant difference was established between two gender groups. In an earlier study by Bar-on and Parker, it was found that women have more cognition and awareness for one's and others' emotions and accept social responsibility (Bar-on and Parker 2000) and the present results strongly support this finding.

Table 4.13

Comparison of SEA Based on Gender

Gender	N	Mean	SD	t value	p value
Male	122	19.12	2.33	-5.614	.000
Female	163	20.85	2.85		

Source: Survey data

Marital Status based comparison:

The self emotion appraisal skill of single and married employees along with mean differences was examined by using T test. The test statistics (table 4.14) indicated that self emotion appraisal skill of married employees (M = 21.11, SD = 2.81) in mental healthcare is significantly different from that of unmarried employees (M = 18.20, SD = 1.33); t (283) = -11.799, p = <0.001. Married employees scored highly in self emotion appraisal scale while unmarried employees scored a medium level.

Table 4.14

Comparison of SEA Based on Marital Status

Marital Status	N	Mean	SD	t value	p value
Single	98	18.20	1.33	-11.799	.000
Married	187	21.11	2.81		

Source: Survey data

Organisational sector based comparison:

T test was adopted to assess the differences in self emotional appraisal skill of mental healthcare employees based on the organisational sector they work. The test results (table 4.15) couldn't reveal any significant differences in self emotion appraisal of mental health employees from both private (M = 19.94, SD = 2.67) and public sector (M = 20.55, SD = 3.02). Employees from public sector scored highly in self emotion appraisal while private sector employees scored a medium level and the difference in the scores of employees from two sectors was insignificant; t (283) = 1.654, p = 0.099.

Table 4.15

Comparison of SEA Based on Organisational Sector

Organisational Sector	N	Mean	SD	t value	p value
Public Sector	77	20.55	3.02	1.654	0.099
Private Sector	208	19.94	2.67		

Source: Survey data

Designation based comparison:

The self emotion appraisal of mental healthcare employees was analysed based on their occupational designations. One way ANOVA was used to investigate the differences in self emotion appraisal of employees with different designations. One way ANOVA results (table 4.16) showed that there is no statistically significant difference in the mean score of self emotion appraisal for different designation groups. Psychiatrists, psychologists, social workers and nurses didn't differ significantly in their respective self emotion appraisal level, F (3, 281) = 2.486, p = 0.061. Among different employee designations psychologists (M = 20.89, SD = 2.57) and nurses (M = 20.29, SD = 2.75) possessed a high level of self emotion appraisal skill while social workers (M = 19.19, SD = 3.07) and psychiatrists (M = 19.50, SD = 2.62) scored a medium level.

Table 4.16

Comparison of SEA Based on Designation

Designation	N	Mean	SD	F value	p value
Psychiatrist	44	19.50	2.62	2.486	0.061
Psychologist	19	20.89	2.57		
Social Worker	26	19.19	3.07		
Nurse	196	20.29	2.75		

Source: Survey data

Work Experience based comparison:

One way ANOVA was used to examine the differences in self emotion appraisal of mental healthcare employees based on their work experience in their respective organisations. Employees were classified in to three categories as low experienced, moderately experienced and highly experienced.

Table 4.17

Comparison of SEA Based on Work Experience

Work Experience	N	Mean	SD	F value	p value
Low Experienced	132	18.63	1.63	200.574	.000
Moderately Experienced	105	19.88	1.93		
Highly Experienced	48	24.66	1.88		

Source: Survey data

As per one way ANOVA results (table 4.17) mental healthcare employees were found to be significantly different in self emotion appraisal skill based on their experience. As the p value is less than 0.05 ($F(2, 282) = 200.574$, $p = <0.001$) null hypothesis was rejected and statistically significant difference was established among highly, moderately and low experienced employees. For precise analysis of the difference in mean scores Post Hoc comparisons were conducted using the Tukey HSD test.

Table 4.18

Comparison of SEA Based on Work Experience, Post Hoc Tests

Work Experience (I)	Work Experience (J)	Mean Difference (I-J)	Std. Error	Sig.
Low Experienced	Moderately Experienced	-1.24935*	.23437	.000**
	Highly Experienced	-6.03030*	.30209	.000**
Moderately Experienced	Low Experienced	1.24935*	.23437	.000**
	Highly Experienced	-4.78095*	.31227	.000**
Highly Experienced	Low Experienced	6.03030*	.30209	.000**
	Moderately Experienced	4.78095*	.31227	.000**
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post hoc results revealed that the self emotion appraisal of mental healthcare employees is significantly different for each category with different work experience (table 4.18). The highly experienced employees scored very highly in self emotion appraisal with mean score of 24.66 and standard deviation of 1.88. Moderately experienced employees showed more self emotion appraisal (M= 19.88 SD = 1.93) than low experienced employees (M= 18.63 SD = 1.63). Self emotion appraisal of both moderately experienced and low experienced employees was found to be at medium level.

4.5 Section C: Others' Emotion Appraisal of Mental Healthcare Employees

Others' Emotion Appraisal (OEA) is the second dimension in the four dimensional definition of emotional intelligence as propounded by Davies. Chi-Sum Wong and Kenneth S. Law developed their popular emotional intelligence scale based on this notion. Others' emotion appraisal refers to the ability of an individual or employee to understand, appraise and express emotions in others who live around

him. The information collected from others' emotion appraisal is further used by employees for managing and regulating emotions and taking crucial decisions related with attitude and behaviour of others working around him.

The others' emotion appraisal level of mental healthcare employees in Kerala was evaluated by mean scores obtained in others' emotion appraisal scale. According to the data mental healthcare employees (n= 285) were found to be in medium level of others' emotion appraisal dimension. The mean score of others' emotion appraisal dimension of employees was 19.59 with a standard deviation of 3.10 (table 4.19) meaning that they show a medium level of others' emotion appraisal skill

Table 4.19

OEA of Mental Healthcare Employees

OEA of mental healthcare employees					
Dimension	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
OEA	285	12.00	28.00	19.59	3.10
Valid N (listwise)	285				

Source: Survey data

4.5.1 Category wise Others' Emotion Appraisal of mental healthcare employees

Others' emotion appraisal of mental healthcare employees in each category was calculated separately. The scores given in the table 4.20 reveals that mental healthcare employees in all categories possessed a medium or high level of others' emotion appraisal skill meaning that they are good in appraising others' emotions. In gender category both male (M = 19.04, SD = 2.68) and female employees (M = 20.00, SD = 3.33) scored a medium level score in others' emotion appraisal scale. Married employees (M = 20.55, SD = 3.08) possessed a high level of others' emotion appraisal while unmarried employees (M = 17.76, SD = 2.19) possessed a medium level. In occupation category all of the psychiatrists (M = 18.81, SD = 3.65), psychologists (M = 19.36, SD = 3.90), nurses (M = 19.81, SD = 2.89) and

social workers (M = 19.42, SD = 2.90) obtained a medium level score. In organisational sector both public (M = 19.44, SD = 3.62) and private sector (M = 19.65, SD = 2.89) employees possessed a medium level of others' emotion appraisal skill. In experience category both highly experienced employees (M = 24.00, SD = 2.60) and moderately experienced (M = 20.09, SD = 1.69) possessed a high level of others' emotion appraisal skill while low experienced (M = 17.59, SD = 2.20) scored a medium level. Among all employee categories highly experienced employees scored highest and low experienced employees scored lowest in others' emotion appraisal skill.

Table 4.20

Category Wise OEA of Mental Healthcare Employees

Category	Status	N	Mean	SD
Gender	Male	122	19.04	2.68
	Female	163	20.00	3.33
Marital status	Single	98	17.76	2.19
	Married	187	20.55	3.08
Occupation	Psychiatrist	44	18.81	3.65
	Psychologist	19	19.36	3.90
	Social Worker	26	19.42	2.90
	Nurse	196	19.81	2.89
Organisation	Public Sector	77	19.44	3.62
	Private Sector	208	19.65	2.89
Work Experience	Low experienced	132	17.59	2.20
	Moderately experienced	105	20.09	1.69
	High experienced	48	24.00	2.60

Source: Survey data

4.5.2 Comparisons of OEA of Mental Healthcare Employees Based on Demographics:

The mean scores of others' emotion appraisal (OEA) of mental healthcare employees were compared based on their demographic factors explored in the study. These demographic factors include gender, marital status, occupational status, organisation and work experience. Statistical tests like T test, ANOVA and Post Hoc tests were used to test the hypotheses.

Gender based comparison:

The differences in others' emotion appraisal skill of male and female employees were explored. Female employees (n = 163) scored high (M = 20.00, SD = 3.33) in others' emotion appraisal dimension than their male counterparts (n = 122, M = 19.04, SD = 2.68). T test was used to assess the significance of difference in others' emotion appraisal of males and females. Test results (table 4.21) indicated that the difference in others' emotion appraisal skill of mental healthcare employees based on gender was statistically significant and null hypothesis was rejected as the p value is <0.05; t (283) = -02.682, p = 0.008. The present result is consistent with findings of Bar - on and Parker (2000) that women have more cognition and awareness for one's and others' emotions.

Table 4.21

Comparison of OEA Based on Gender

Gender	N	Mean	SD	t value	p value
Male	122	19.04	2.68	-02.682	0.008
Female	163	20.00	3.33		

Source: Survey data

Marital Status based comparison:

The differences in others' emotion appraisal skill of single and married employees were examined. Married employees were found to score highly in others' emotion appraisal skill compared to unmarried employees. Married employees

scored a high level with a mean score of 20.55 (SD = 3.08) while unmarried employees scored a medium level (M = 17.76, SD = 2.19). T test was adopted to evaluate the significance of difference in others' emotion appraisal of single and married employees. The test statistics (table 4.22) indicated that others' emotion appraisal skill of married employees in mental healthcare is significantly different from that of unmarried employees; t (283) = -8.831, p = <0.001, where married employees scored highly than unmarried employees.

Table 4.22

Comparison of OEA Based on Marital Status

Marital Status	N	Mean	SD	t value	p value
Single	98	17.76	2.19	-8.831	.000
Married	187	20.55	3.08		

Source: Survey data

Organisational sector based comparison:

T test was adopted to assess the significance of differences in others' emotional appraisal of mental healthcare employees based on the organisational sector they work. The test results (table 4.23) couldn't reveal any significant difference in others' emotion appraisal skill of employees from both private (M = 19.65, SD = 2.89) and public sector (M = 19.44, SD = 3.62). Employees from both organisational sectors scored a medium level of others' emotion appraisal skill. The difference between two sectors in others' emotion appraisal scale was not statistically significant; t (283) = -0.462, p = 0.645.

Table 4.23

Comparison of OEA Based on Organisational Sector

Organisational Sector	N	Mean	SD	t value	p value
Public Sector	77	19.44	3.62	-0.462	0.645
Private Sector	208	19.65	2.89		

Source: Survey data

Designation based comparison:

The Others' emotion appraisal of mental healthcare employees was analysed based on their occupational designations. The mean scores of others' emotion appraisal dimension revealed that psychiatrists (M = 18.81, SD = 3.65), social workers (M = 19.42, SD = 2.90), psychologists (M = 19.36, SD = 3.90) and nurses (M = 19.81, SD = 2.89) holds a medium level of others' emotion appraisal skill where nurses scored highest and psychiatrists scored the lowest. One way ANOVA was used to investigate the significance of differences in others' emotion appraisal of employees with different designations. One way ANOVA results (table 4.24) showed that there is no statistically significant difference in others' emotion appraisal skill of mental healthcare employees with different occupational designations. Psychiatrists, psychologists, social workers and nurses didn't differ significantly in their respective others' emotion appraisal levels, F (3, 281) = 1.315, p = 0.270.

Table 4.24

Comparison of OEA Based on Designation

Designation	N	Mean	SD	F value	p value
Psychiatrist	44	18.81	3.65	1.315	0.270
Psychologist	19	19.36	3.90		
Social Worker	26	19.42	2.90		
Nurse	196	19.81	2.89		

Source: Survey data

Work Experience based comparison:

One way ANOVA was conducted to examine the significance of mean differences in others' emotion appraisal of mental healthcare employees based on their work experience in their respective organisations. Employees were classified in to three categories as low experienced, moderately experienced and highly experienced.

Table 4.25

Comparison of OEA Based on Work Experience

Work Experience	N	Mean	SD	F value	p value
Low Experienced	132	17.59	2.20	167.006	.000
Moderately Experienced	105	20.09	1.69		
Highly Experienced	48	24.00	2.60		

Source: Survey data

As per one way ANOVA results (table 4.25) mental healthcare employees were found to be significantly different in others' emotion appraisal skill based on their experience. The difference in mean score was found to be significant as the p value was less than 0.05 ($F(2, 282) = 167.006$, $p = <0.001$). Null hypothesis was rejected to establish a statistically significant difference among highly, moderately and low experienced mental healthcare employees. For precise analysis of the differences and finding cause for differences in mean scores Post hoc comparisons were conducted using the Tukey HSD test.

Table 4.26

Comparison of OEA Based on Work Experience, Post Hoc Tests

Work Experience (I)	Work Experience (J)	Mean Difference (I-J)	Std. Error	Sig.
Low Experienced	Moderately Experienced	-2.49675*	.27562	.000**
	Highly Experienced	-6.40152*	.35525	.000**
Moderately Experienced	Low Experienced	2.49675*	.27562	.000**
	Highly Experienced	-3.90476*	.36723	.000**
Highly Experienced	Low Experienced	1.60038*	.08881	.000**
	Moderately Experienced	.97619*	.09181	.000**
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post hoc results revealed that the others' emotion appraisal of mental healthcare employees is significantly different for low (M = 17.59 SD = 2.20), moderately (M = 20.09 SD = 1.69) and highly experienced (M = 24.00 SD = 2.60) employees (table 4.26). The differences in others' emotion appraisal among mental health employees with difference experience was statistically significant for all groups at 0.05 significance level as the p value is less than 0.05 for all groups. Both highly and moderately experienced employees scored very highly in others' emotion appraisal while low experienced scored a medium level.

The graphical representation of OEA comparison based on work experience is given below in Fig 4.2:

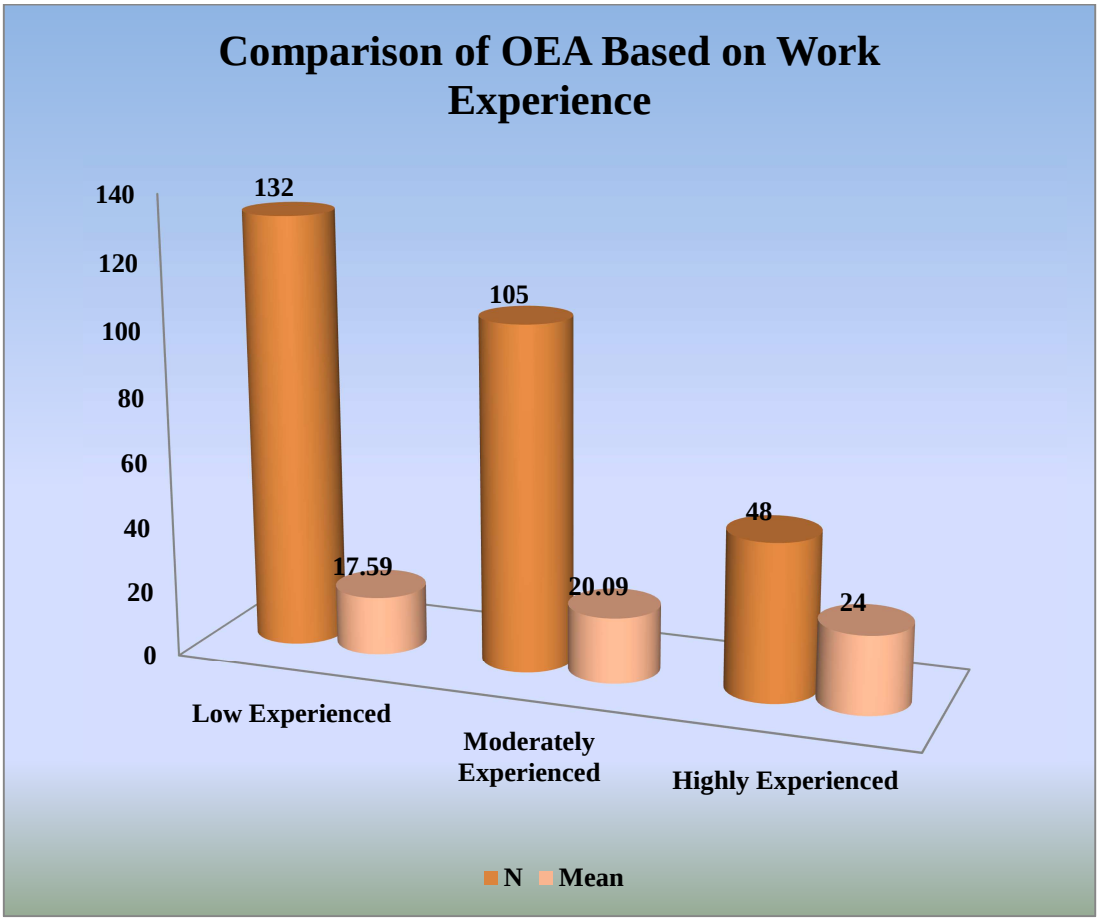


Fig 4.2: Comparison of OEA Based on Work Experience

4.6 Section D: Use of Emotion of Mental Healthcare Employees

Use of Emotion (UOE) is the third dimension in the four dimensional definition of emotional intelligence as propounded by Davies. Chi-Sum Wong and Kenneth S. Law developed their popular emotional intelligence scale based on this notion. Use of emotion refers to the ability of an individual or employee to use the information availed from their emotional appraisal for the benefit of self and organisation. Through use of emotion skill an individual can manage and regulate emotions in self and others and apply this information for better results in organisational personal life.

The use of emotion level of mental healthcare employees in Kerala was assessed by calculating the scores obtained in Use of Emotion scale. The analysis of data clearly indicated that mental healthcare employees (n= 285) are in medium level of use of emotion dimension in contrast to self emotion appraisal which showed a high level score. The mean score of use of emotion dimension of employees was found to be 18.20 with a standard deviation of 3.36 (table 4.27) which come in the range of medium level and means that mental healthcare employees have a moderate skill of using emotions.

Table 4.27

UOE of Mental Healthcare Employees

UOE of Mental Healthcare Employees					
Dimension	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
UOE	285	12.00	28.00	18.20	3.36
Valid N (listwise)	285				

Source: Survey data

4.6.1 Category Wise Use of Emotion of Mental Healthcare Employees

Use of emotion of mental healthcare employees in each employee category was calculated based on the mean scores obtained in use of emotion subscale for each category.

Table 4.28

Category Wise UOE of Mental Healthcare Employees

Category	Status	N	Mean	SD
Gender	Male	122	17.77	3.10
	Female	163	18.52	3.52
Marital status	Single	98	17.14	2.75
	Married	187	18.76	3.52
Occupation	Psychiatrist	44	17.27	3.90
	Psychologist	19	20.94	2.77
	Social Worker	26	18.00	3.95
	Nurse	196	18.17	3.07
Organisation	Public Sector	77	18.06	3.62
	Private Sector	208	18.25	3.26
Work Experience	Low experienced	132	17.09	2.64
	Moderately experienced	105	17.36	2.37
	High experienced	48	23.12	2.54

Source: Survey data

As pert Table 4.28 both male (M = 17.77, SD = 3.10) and female (M = 18.52, SD = 3.52) employees in gender category scored a medium level in use of emotion dimension. Both married (M = 18.76, SD = 3.52) and unmarried employees (M = 17.14, SD = 2.75) possessed a medium level of use of emotion skill. In occupation category psychologists (M = 20.94, SD = 2.77) obtained a high level score and all other categories including psychiatrists (M = 17.27, SD = 3.90), social workers (M = 18.00, SD = 3.95) and nurses (M = 18.17, SD = 3.07) obtained a medium level score. Both public sector (M = 18.06, SD = 3.62) and private sector employees (M = 18.25, SD = 3.26) possessed a medium level of use of emotion skill. Based on experience, highly experienced employees (M = 23.12, SD = 2.54) scored a high score while low experienced (M = 17.09, SD = 2.64) and moderately experienced employees (M = 17.36, SD = 2.37) scored a medium level. The scores

given in table 4.28 reveals that highly experienced employees scored the highest level of use of emotion skill while the low experienced employees scored the lowest.

4.6.2 Comparisons of UOE of Mental Healthcare Employees Based on Demographics:

The mean scores of use of emotion (UOE) of mental healthcare employees were compared based on their demographic factors explored in the study. These demographic factors include gender, marital status, occupational status, organisation and work experience. Statistical tests like T test, ANOVA and Post Hoc tests were used to test the hypotheses.

Gender based comparison:

The differences in use of emotion skill of male and female employees were explored. Female employees (n = 163) scored higher (M = 18.52, SD = 3.52) in use of emotion dimension than their male counterparts (n = 122, M = 17.77, SD = 3.10). T test was used to assess the significance of difference in use of emotion of males and females. Test results (table 4.29) indicated that the difference in mean score of use of emotion based on gender was not statistically significant as the p value is >0.5. The difference based on gender was mere of chance, t (283) = -1.767, p = 0.078.

Table 4.29

Comparison of UOE Based on Gender

Gender	N	Mean	SD	t value	p value
Male	122	17.77	3.10	-1.767	0.078
Female	163	18.52	3.52		

Source: Survey data

Marital Status based comparison:

The differences in use of emotion skill of single and married employees were examined. Married employees were found to score higher in use of emotion skill than unmarried employees. Married employees scored a mean score of 18.76 (SD =

3.52) while unmarried employees scored a mean score of 17.14 (SD = 2.75). Further T test was adopted to evaluate the significance of difference in use of emotion of single and married employees. The test statistics (table 4.30) indicated that use of emotion skill of married employees in mental healthcare is significantly different from that of unmarried employees; t (283) = -4.136, p = <0.001, where married employees scored highly than unmarried employees. Both single and married employees were found to score at medium level in use of emotion scale.

Table 4.30

Comparison of UOE Based on Marital Status

Marital Status	N	Mean	SD	t value	p value
Single	98	17.14	2.75	-4.136	.000
Married	187	18.76	3.52		

Source: Survey data

Organisational sector based comparison:

T test was adopted to assess the significance of differences in use of emotion skill of mental healthcare employees based on the organisational sector they work. The test results (table 4.31) couldn't reveal any significant difference in use of emotion skill of employees from both private (M = 18.06 SD = 3.62) and public sector (M = 18.25, SD = 3.26). The difference between two sectors in use of emotion skill was insignificant or mere of chance; t (283) = -0.487, p = 0.626.

Table 4.31

Comparison of UOE Based on Organisational Sector

Organisational Sector	N	Mean	SD	t value	p value
Public Sector	77	18.06	3.62	-0.487	0.626
Private Sector	208	18.25	3.26		

Source: Survey data

Designation based comparison:

The use of emotion skill of mental healthcare employees was analysed based on their occupational designations. The mean scores for use of emotion dimension revealed that psychologists (M = 20.94, SD = 2.77) scored highly in use of emotion compared to other categories. Psychiatrists (M = 17.27, SD = 3.90), social workers (M = 18.00, SD = 3.95) and nurses (M = 18.17, SD = 3.07) showed a medium level of use of emotion skill where nurses scored highest and social workers scored lowest. One way ANOVA was used to investigate the significance of differences in use of emotion of employees with different designations. One way ANOVA results (table 4.32) showed that difference in use of emotion skill of mental healthcare employees based on occupational designations was statistically significant at 0.05 level of significance; F (3, 281) = 5.642, p = 0.001.

Table 4.32

Comparison of UOE Based on Designation

Designation	N	Mean	SD	F value	p value
Psychiatrist	44	17.27	3.90	5.642	.001
Psychologist	19	20.94	2.77		
Social Worker	26	18.00	3.95		
Nurse	196	18.17	3.07		

Source: Survey data

For getting a clear picture of difference and understanding who caused for difference a Post hoc comparison was conducted using the Tukey HSD test.

Table 4.33

Comparison of UOE Based on Designation, Post Hoc Tests

Occupational Status (I)	Occupational Status (J)	Mean Difference (I-J)	Std. Error	Sig.
Psychiatrist	Psychologist	-3.67464*	.90150	.000**
	social worker	-.72727	.81233	.807
	Nurse	-.90584	.54784	.325
Psychologist	Psychiatrist	3.67464*	.90150	.000**
	social worker	2.94737*	.99115	.017**
	Nurse	2.76880*	.78907	.003**
Social worker	Psychiatrist	.72727	.81233	.807
	Psychologist	-2.94737*	.99115	.017**
	Nurse	-.17857	.68543	.991
Nurse	Psychiatrist	.90584	.54784	.325
	Psychologist	-2.76880*	.78907	.003**
	social worker	.17857	.68543	.991
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post hoc results indicated that use of emotion skill of psychologists (M= 20.94 SD = 0.2.77, p = <0.001) is significantly different from that of all other employee categories (table 4.33). As the p value is less than 0.05 the difference was found to be significant. Only psychologists among mental healthcare employees holds a high level of use of emotion skill compared to all other categories like psychiatrists, nurses and social workers. Post hoc test revealed that any employee category other than psychologists made no significant difference in use of emotion skill.

Work Experience based comparison:

The difference in use of emotion skill of mental healthcare employees was examined based on their work experience. One way ANOVA was conducted to

examine the significance of mean differences in use of emotion of mental healthcare employees based on their work experience in their respective organisations. Employees were classified in to three categories as low experienced, moderately experienced and highly experienced.

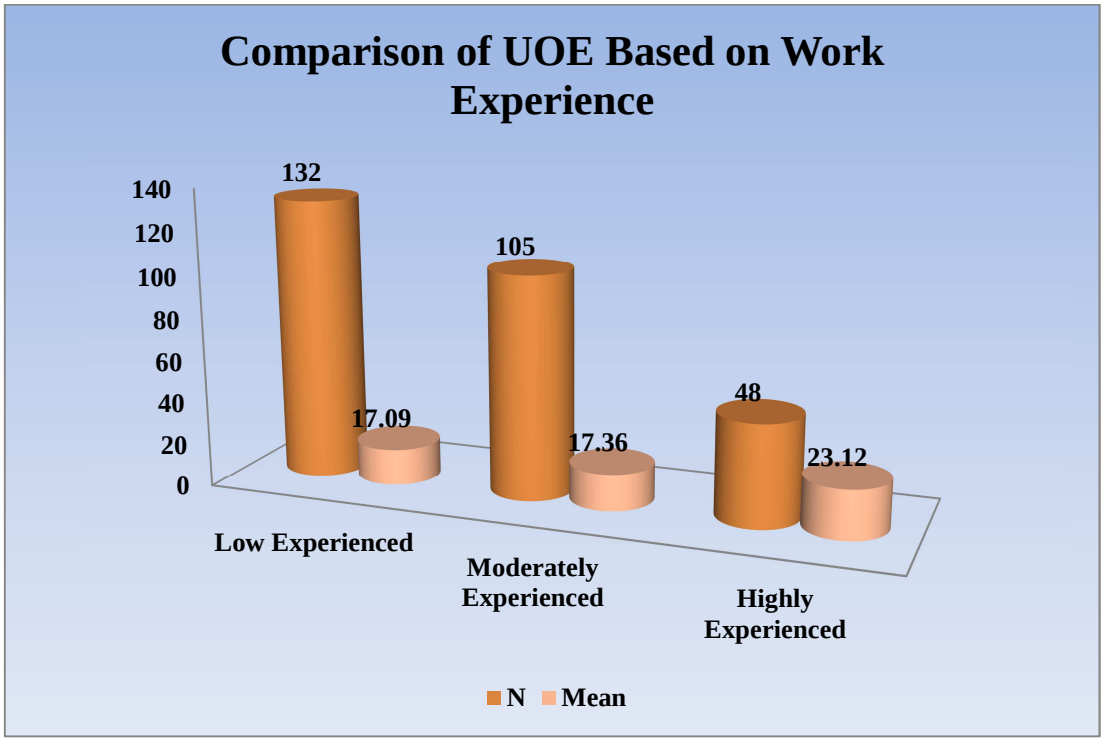


Fig 4.3: Comparison of UOE Based on Work Experience

As per one way ANOVA results (table 4.34) mental healthcare employees were found to be significantly different in use of emotion skill based on their experience. The difference in mean score was found to be significant as the p value was less than 0.05 ($F(2, 282) = 107.853$, $p = <0.001$). Null hypothesis was rejected to establish a statistically significant difference among highly, moderately and low experienced mental healthcare employees. The graphical representation of UOE comparison based on work experience is given in Fig 4.3:

Table 4.34

Comparison of UOE Based on Work Experience

Work Experience	N	Mean	SD	F value	p value
Low Experienced	132	17.09	2.64	107.853	.000
Moderately Experienced	105	17.36	2.37		
Highly Experienced	48	23.12	2.54		

Source: Survey data

For precise analysis of the differences and understanding clearly the cause for difference in mean scores Post hoc comparisons were conducted using the Tukey HSD test.

Table 4.35

Comparison of UOE Based on Work Experience, Post Hoc Tests

Work Experience (I)	Work Experience (J)	Mean Difference (I-J)	Std. Error	Sig.
Low Experienced	Moderately Experienced	-.27100	.33151	.762
	Highly Experienced	-6.03409*	.42730	.000**
Moderately Experienced	Low Experienced	.27100	.33151	.762
	Highly Experienced	-5.76310*	.44171	.000**
Highly Experienced	Low Experienced	6.03409*	.42730	.000**
	Moderately Experienced	5.76310*	.44171	.000**
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post hoc results revealed that the use of emotion skill of highly experienced mental healthcare employees is significantly different from all other categories (table 4.35). Highly experienced employees (M= 23.12, SD = 2.5463) were found to be very high in use of emotion skill while low experienced (M=

17.09, SD = 2.64) and moderately experienced (M= 17.36, SD = 2.37) employees showed a medium level of use of emotion skill. As p value was less than 0.05 at 0.05 significance level psychologists were found to be significantly different from other two groups, namely moderately experienced and low experienced employees. Interestingly no any significant difference was found in use of emotion between moderately experienced and low experienced.

4.7 Section E: Regulation of Emotion of Mental Healthcare Employees

Regulation of Emotion (ROE) is the fourth dimension in the four dimensional definition of emotional intelligence as propounded by Davies. Chi-Sum Wong and Kenneth S. Law developed their popular emotional intelligence scale based on this notion. Regulation of emotion refers to the ability of an individual or employee to regulate the emotions and feelings for better results in personal and work life. Through regulation of emotion skill an individual can manage and regulate emotions in self and others and apply this information for making the work more interesting and building a cordial relationship with co-workers.

The regulation of emotion level of mental healthcare employees in Kerala was assessed by calculating the scores obtained in Regulation of emotion scale. The analysis of data clearly indicated that mental healthcare employees (n= 285) are in medium level of regulation of emotion dimension like that of others' emotion appraisal and use of emotion dimensions. The mean score of regulation of emotion dimension of employees was found to be 18.37 with a standard deviation of 2.84 (table 4.36). The mean scores revealed that mental healthcare employees possess a medium level of regulation of emotion ability.

Table 4.36

ROE of Mental Healthcare Employees

ROE of Mental Healthcare Employees					
Dimension	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
ROE	285	12.00	28.00	18.37	2.84
Valid N (listwise)	285				

Source: Survey data

4.7.1 Category Wise Regulation of Emotion of Mental Healthcare Employees

The level of regulation of emotion in mental healthcare was assessed for each employee categories separately. The scores given in the table 4.37 revealed that employees in all categories other than high experienced nurse scored a medium of regulation of emotion skill. In gender category both male (M = 17.95, SD = 2.75) and female (M = 18.69, SD = 2.87) employees scored medium level in regulation of emotion dimension where female scored higher than male. Married employees (M = 18.88, SD = 3.01) scored higher than unmarried employees (M = 17.41, SD = 2.21) where both scored a medium level score. In occupation category all scored a medium level score and psychologists (M = 19.36, SD = 2.65) scored higher than psychiatrists (M = 16.77, SD = 3.54), social workers (M = 17.00, SD = 4.14) and nurses (M = 18.82, SD = 2.24). Highly experienced employees (M = 22.33, SD = 2.02) possessed the high level of regulation of emotion skill while low experienced (M = 17.46, SD = 2.22) and moderately experienced (M = 17.71, SD = 2.30) employees possessed a medium level of regulation of emotion skill. Among all categories high experienced employees scored highest and psychiatrists scored the lowest in regulation of emotion dimension.

Table 4.37

Category Wise ROE of Mental Healthcare Employees

Category	Status	N	Mean	SD
Gender	Male	122	17.95	2.75
	Female	163	18.69	2.87
Marital status	Single	98	17.41	2.21
	Married	187	18.88	3.01
Occupation	Psychiatrist	44	16.77	3.54
	Psychologist	19	19.36	2.65
	Social Worker	26	17.00	4.14
	Nurse	196	18.82	2.24
Organisation	Public Sector	77	18.32	3.07
	Private Sector	208	18.39	2.76
Work Experience	Low experienced	132	17.46	2.22
	Moderately experienced	105	17.71	2.30
	Highly experienced	48	22.33	2.02

Source: Survey data

4.7.2 Comparisons of ROE of Mental Healthcare Employees Based on Demographics:

The mean scores of regulation of emotion (ROE) of mental healthcare employees were compared based on their demographic factors explored in the study. These demographic factors include gender, marital status, occupational status, organisation and work experience. Statistical tests like T test, ANOVA and Post Hoc tests were used to test the hypotheses.

Gender based comparison:

The differences in regulation of emotion skill of male and female employees were explored. Female employees (n = 163) scored highly (M = 18.69, SD = 2.87) in regulation of emotion dimension than their male counterparts (n = 122, M = 17.95, SD = 2.75). The scores of both male and female employees in regulation of

emotion were at medium level. T test was used to assess the significance of difference in regulation of emotion of males and females. Test results (table 4.38) indicated that the difference in mean score of regulation of emotion based on gender was statistically significant and null hypothesis was rejected as the p value is <0.5. Test results concluded that the differences of male and female employees in regulating their emotions was not mere of chance but is very significant statistically; t (283) = -2.170, p = 0.031.

Table 4.38

Comparison of ROE Based on Gender

Gender	N	Mean	SD	t value	p value
Male	122	17.95	2.75	-2.170	0.031
Female	163	18.69	2.87		

Source: Survey data

Marital Status based comparison:

The differences in regulation of emotion skill of single and married employees were examined. Married employees were found to score high in regulation of emotion skill than unmarried employees. Married employees scored a mean score of 18.88 (SD = 3.01) while unmarried employees scored a mean score of 17.41 (SD = 2.21). Further T test was adopted to evaluate the significance of difference in regulation of emotion of single and married employees. The test statistics (table 4.39) indicated that regulation of emotion skill of married employees in mental healthcare is significantly different from that of unmarried employees; t (283) = -4.248, p = <0.001, where married employees scored highly than unmarried employees. Both married and unmarried employees were found to score at a medium level in regulation of emotion scale.

Table 4.39

Comparison of ROE Based on Marital Status

Marital Status	N	Mean	SD	t value	p value
Single	98	17.41	2.21	-4.248	.000
Married	187	18.88	3.01		

Source: Survey data

Organisational sector based comparison:

The regulation of emotion skill of public sector and private sector employees was evaluated to find out whether there existed any difference based on organisational sector. T test was adopted to assess the significance of differences in regulation of emotion skill of mental healthcare employees based on their organisational sector. The scores revealed that employees from both sectors possessed a moderate level score in regulation of emotion. The test results (table 4.40) couldn't reveal any significant difference in regulation of emotion skill of employees from both public (M = 18.32, SD = 3.07) and private sector (M = 18.39, SD = 2.76). The difference between two sectors in self regulation of emotion dimension was not statistically significant; t (283) = -0.186, p = 0.853.

Table 4.40

Comparison of ROE Based on Organisational Sector

Organisational Sector	N	Mean	SD	t value	p value
Public Sector	77	18.32	3.07	-0.186	0.853
Private Sector	208	18.39	2.76		

Source: Survey data

Designation based comparison:

The regulation of emotion skill of mental healthcare employees was analysed based on their occupational designations. The mean scores for regulation of emotion dimension revealed that psychologists and nurses scored highly in regulation of

emotion dimension compared to other categories. Employees in all designations were found to possess a medium level of regulation of emotion whereas psychologists (M = 19.36, SD = 2.65) scored the highest and psychiatrists (M = 16.77, SD = 3.54) scored the lowest. One way ANOVA was used to investigate the significance of differences in regulation of emotion of employees with different designations. One way ANOVA results (table 4.41) showed that difference in regulation of emotion skill of mental healthcare employees based on occupational designations was statistically significant at 0.05 level of significance; F (3, 281) = 9.952, p = 0.000.

Table 4.41

Comparison of ROE Based on Designation

Designation	N	Mean	SD	F value	p value
Psychiatrist	44	16.77	3.54	9.952	.000
Psychologist	19	19.36	2.65		
Social Worker	26	17.00	4.14		
Nurse	196	18.82	2.24		

Source: Survey data

For getting a clear picture of difference and understanding who caused for difference a Post hoc comparison was conducted using the Tukey HSD test.

Table 4.42

Comparison of ROE Based on Designation, Post Hoc Tests

Occupational Status (I)	Occupational Status (J)	Mean Difference (I-J)	Std. Error	Sig.
Psychiatrist	Psychologist	-2.59569*	.74656	.003**
	social worker	-.22727	.67272	.987
	Nurse	-2.05380*	.45368	.000**
Psychologist	Psychiatrist	2.59569*	.74656	.003**
	social worker	2.36842*	.82080	.022**
	Nurse	.54189	.65345	.841
social worker	Psychiatrist	.22727	.67272	.987
	Psychologist	-2.36842*	.82080	.022**
	Nurse	-1.82653*	.56762	.008**
Nurse	Psychiatrist	2.05380*	.45368	.000**
	Psychologist	-.54189	.65345	.841
	social worker	1.82653*	.56762	.008**

*The mean difference is significant at the 0.05 level
** reject (Ho)

Source: Survey data

The Tukey Post hoc results indicated that regulation of emotion skill of psychologists (M = 19.36, SD = 2.65, p = <0.05) and nurses (M = 18.82, SD = 2.24, p = <0.05) is significantly different from that of psychiatrists and social workers (table 4.42). As the p value is less than 0.05 the difference was found to be significant and null hypothesis was rejected. Post hoc test revealed that there is no any significant difference in regulation of emotion skill of psychiatrists and social worker as well as psychologists and nurses. Psychologists and nurses among mental healthcare employees possessed a high level of regulation of emotion skill compared to other two categories namely psychiatrists and social workers. The graphical and pictorial representation of the ROE comparison based on designation is illustrated in Fig 4.4.

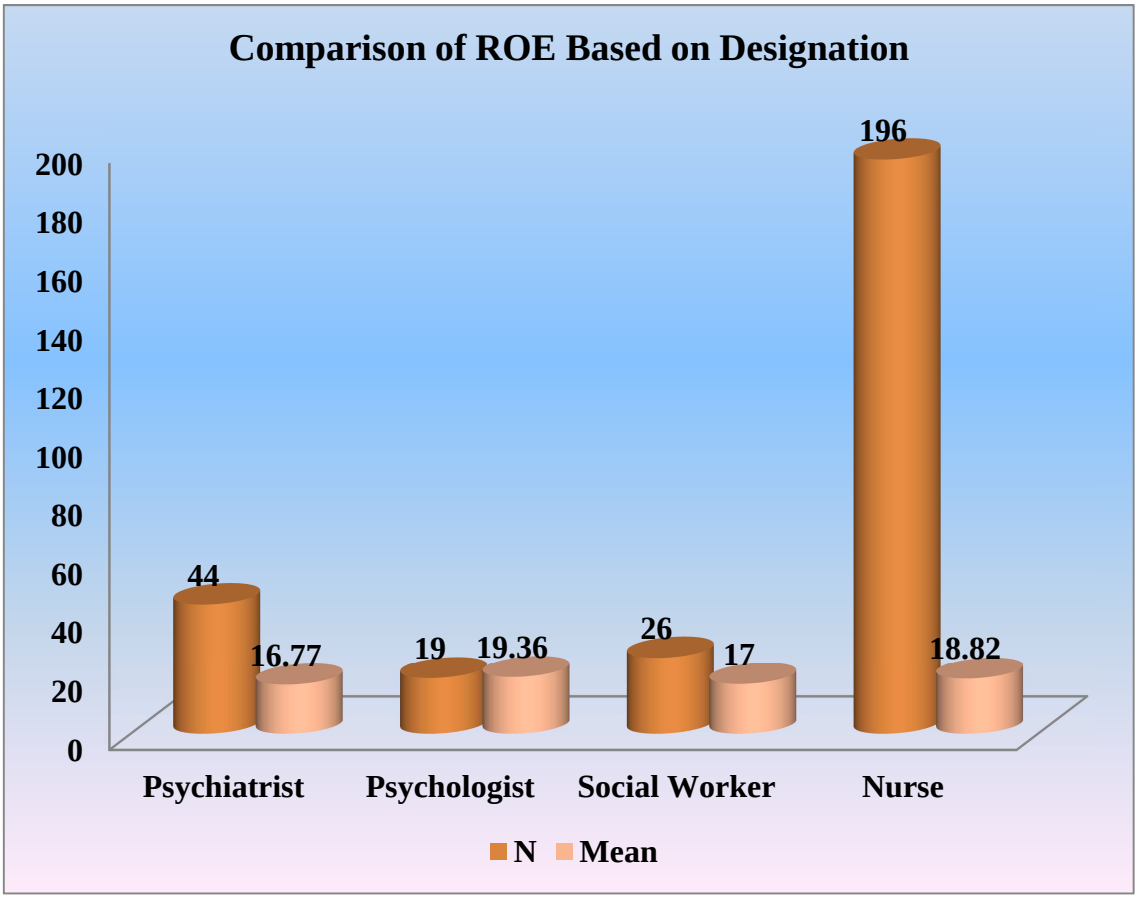


Fig 4.4: Comparison of ROE Based on Designation

Work Experience based comparison:

The difference in regulation of emotion skill of mental healthcare employees was examined based on their work experience. One way ANOVA was conducted to examine the significance of mean differences in regulation of emotion of mental healthcare employees based on their work experience in their respective organisations. Employees were classified in to three categories as low experienced, moderately experienced and highly experienced.

Table 4.43

Comparison of ROE Based on Work Experience

Work Experience	N	Mean	SD	F value	p value
Low Experienced	132	17.46	2.22	91.717	.000
Moderately Experienced	105	17.71	2.30		
Highly Experienced	48	22.33	2.02		

Source: Survey data

As per one way ANOVA results (table 4.43) mental healthcare employees were found to be significantly different in regulation of emotion skill based on their experience. The difference in mean score was found to be significant as the p value was less than 0.05 (F (2, 282) = 107.853, p = <0.001). Null hypothesis was rejected to establish a statistically significant difference among highly, moderately and low experienced mental healthcare employees. For precise analysis of the differences and understanding clearly the cause for difference in mean scores Post hoc comparisons were conducted using the Tukey HSD test.

Table 4.44

Comparison of ROE Based on Work Experience, Post Hoc Tests

Work Experience (I)	Work Experience (J)	Mean Difference (I-J)	Std. Error	Sig.
Low Experienced	Moderately Experienced	-.24459	.29063	.677
	Highly Experienced	-4.86364*	.37461	.000
Moderately Experienced	Low Experienced	.24459	.29063	.677
	Highly Experienced	-4.61905*	.38724	.000
Highly Experienced	Low Experienced	4.86364*	.37461	.000
	Moderately Experienced	4.61905*	.38724	.000
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post hoc results revealed that the regulation of emotion skill of highly experienced mental healthcare employees is significantly different from all other categories (table 4.44). Highly experienced employees (M= 22.33, SD = 2.02) were found to be very high in regulation of emotion skill while low experienced (M= 17.46, SD = 2.22) and moderately experienced (M= 17.71, SD = 2.30) employees showed a medium level of regulation of emotion skill. As p value was less than 0.05 at 0.05 significance level, psychologists were found to be significantly different from other two groups, namely moderately experienced and low experience. Interestingly no any significant difference was found in regulation of emotion between moderately experienced and low experienced.

4.8 Section F: Emotional Intelligence of Mental Healthcare Employees

This section analyses the overall emotional intelligence level of mental healthcare employees in Kerala. The scores of four dimensions of emotional intelligence namely, self emotion appraisal, others' emotion appraisal, use of emotion and regulation of emotion were calculated and summed up to find out the total emotional intelligence of the mental health employees. Emotional intelligence refers to the ability of an individual or employee to appraise, understand, use and regulate the emotions and feelings in oneself and others for better results in personal and work life. The emotionally intelligent individual can manage and regulate emotions in self and others and apply this information for making the work more interesting and building a cordial relationship with co-workers.

The emotional intelligence level of mental healthcare employees in Kerala was assessed by calculating the scores obtained in four dimension of Emotional intelligence scale. The analysis of data clearly indicated that mental healthcare employees in Kerala (n= 285) are in medium level of emotional intelligence. The mean score for emotional intelligence of employees was found to be 76.29 with a standard deviation of 10.17 (table 4.45). The mean score obtained in overall emotional intelligence scale revealed that mental healthcare employees in Kerala are

at average level in appraising, monitoring, using and regulating different types of emotion.

Table 4.45

EI of Mental Healthcare Employees

EI of Mental Healthcare Employees					
Dimension	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
EI	285	58.00	111.00	76.29	10.17
Valid N (listwise)	285				

Source: Survey data

4.8.1 Category wise Emotional intelligence of Mental Healthcare Employees

Total emotional intelligence score of mental healthcare employees in each category was calculated separately based on the mean scores obtained in four subscales of emotional intelligence.

Table 4.46

Category Wise EI of Mental Healthcare Employees

Category	Status	N	Mean	SD
Gender	Male	122	73.90	8.90
	Female	163	78.07	10.71
Marital status	Single	98	70.53	5.80
	Married	187	79.31	10.66
occupation	Psychiatrist	44	72.36	11.95
	Psychologist	19	80.57	9.78
	Social Worker	26	73.61	12.24
	Nurse	196	77.11	9.18
organisation	Public Sector	77	76.38	11.85
	Private Sector	208	76.25	9.51
Work Experience	Low experienced	132	70.79	5.41
	Medium experienced	105	75.05	5.67
	High experienced	48	94.12	7.71

Source: Survey data

The scores given in the table 4.46 revealed that psychologists and highly experienced employees possessed a high level of emotional intelligence while all other categories scored a medium level score. In gender category both male and female employees scored medium level score in total emotional intelligence where female scored higher than male counterparts. Both married and unmarried employees possessed medium level of emotional intelligence skill but married ones scored higher than unmarried employees. In occupation category psychologists scored a high level of emotional intelligence score while psychiatrists, social workers and nurses scored an average score. In organisational sector employees from both public and private sector scored medium level score. In experience category highly experienced employees possessed a higher level of emotional intelligence while low experienced and moderately experienced employees obtained an average score. Among all categories high experienced employees scored highest and unmarried employees scored the lowest in overall emotional intelligence.

4.8.2 Comparisons of EI of Mental Healthcare Employees Based on Demographics:

The emotional intelligence (EI) of mental healthcare employees was compared based on their demographic factors explored in the study. These demographic factors include gender, marital status, occupational status, organisation and work experience. Statistical tests like T test, ANOVA and Post Hoc tests were used to test the hypotheses.

Gender based comparison:

The differences in emotional intelligence of male and female employees were explored. Female employees (n = 163) scored high (M = 78.07, SD = 10.71) in emotional intelligence than their male counterparts (n = 122, M = 73.90, SD = 8.90). T test was used to assess the significance of difference in emotional intelligence of males and females. Test results (table 4.47) indicated that the difference in mean score of emotional intelligence based on gender was statistically significant and null hypothesis was rejected as the p value is <0.5. Test results concluded that the

differences of male and female employees in emotional intelligence skill was not mere of chance but is very significant statistically; t (283) = -3.456, p = 0.001. The results support the finding of many previous studies that females score more on emotional intelligence scale (Afolabi AO, Adesina AA, 2006; Day AL, Carroll SA, 2004; Grewal D, Salovey P, 2005). In a study Pande HS (2010) concluded that there is a difference in the mean scores of male and female employees in emotional intelligence with females scoring more.

Table 4.47

Comparison of EI Based on Gender

Gender	N	Mean	SD	t value	p value
Male	122	73.90	8.90	-3.456	0.001
Female	163	78.07	10.71		

Source: Survey data

Marital Status based comparison:

The differences in emotional intelligence of both single and married employees were examined. Married employees were found to be highly emotionally intelligent than unmarried employees. Married employees scored a mean score of 79.31 (SD = 10.66) while unmarried employees scored a mean score of 70.53 (SD = 5.80). Further T test was adopted to evaluate the significance of difference in emotional intelligence of single and married employees. The test statistics (table 4.48) indicated that emotional intelligence skill of married employees in mental healthcare is significantly different from that of unmarried employees; t (283) = -8.934, p = <0.001, where married employees scored highly than unmarried employees. Married employees were found to score at high level while unmarried scored only at medium level in emotional intelligence scale. The results are in line with the finding of Kalyoncu Z et al. (2012) who postulated that emotional intelligence of married individuals is higher than single individuals and the findings of Ealias, A., & George, J (2012) who established a significant differences in the mean scores of emotional intelligence based on marital status.

Table 4.48

Comparison of EI Based on Marital Status

Marital Status	N	Mean	SD	t value	p value
Single	98	70.53	5.80	-8.934	.000
Married	187	79.31	10.66		

Source: Survey data

Organisational sector based comparison:

The emotional intelligence of public sector and private sector employees was evaluated to find out whether there existed any difference based on organisational sector. T test was adopted to assess the significance of differences in emotional intelligence skill of mental healthcare employees based on their organisational sector. The test results (table 4.49) couldn't reveal any significant difference in emotional intelligence skill of employees from both public (M = 76.38, SD = 11.85) and private sector (M = 76.25, SD = 9.51). The difference between two sectors in emotional intelligence was not statistically significant; t (283) = 0.071, p = 0.944. Results confirmed that mental healthcare employees from both public and private sectors are moderate in emotional intelligence. The results support the findings of previous studies that there is no significant difference in emotional intelligence between the government sector employees and private sector employees (Deshwal, S. (2015), Tokpam, et al. (2015), Bhanu Priya (2018).

Table 4.49

Comparison of EI Based on Organisational Sector

Organisational Sector	N	Mean	SD	t value	p value
Public Sector	77	76.38	11.85	0.071	0.944
Private Sector	208	76.25	9.51		

Source: Survey data

Designation based comparison:

The emotional intelligence of mental healthcare employees was analysed based on their occupational designations. The mean scores for emotional intelligence scale revealed that psychologists scored highly in emotional intelligence dimension compared to other categories. Psychiatrists, nurses and social workers showed a medium level of emotional intelligence skill where nurses scored highest and psychiatrists scored lowest. One way ANOVA was used to investigate the significance of differences in emotional intelligence of employees with different designations. One way ANOVA results (table 4.50) showed that difference in emotional intelligence skill of mental healthcare employees based on occupational designations was statistically significant at 0.05 level of significance; F (3, 281) = 4.534, p = 0.004.

Table 4.50

Comparison of EI Based on Designation

Designation	N	Mean	SD	F value	p value
Psychiatrist	44	72.36	11.95	4.534	.004
Psychologist	19	80.57	9.78		
Social Worker	26	73.61	12.24		
Nurse	196	77.11	9.18		

Source: Survey data

For getting a clear picture of difference and understanding who caused for difference a Post hoc comparison was conducted using the Tukey HSD test.

Table 4.51

Comparison of EI Based on Designation, Post Hoc Tests

Occupational Status (I)	Occupational Status (J)	Mean Difference (I-J)	Std. Error	Sig.
Psychiatrist	Psychologist	-8.21531*	2.74297	.016**
	social worker	-1.25175	2.47167	.957
	Nurse	-4.75371*	1.66688	.023**
Psychologist	Psychiatrist	8.21531*	2.74297	.016**
	social worker	6.96356	3.01576	.098
	Nurse	3.46160	2.40087	.480
Social worker	Psychiatrist	1.25175	2.47167	.957
	Psychologist	-6.96356	3.01576	.098
	Nurse	-3.50196	2.08553	.330
Nurse	Psychiatrist	4.75371*	1.66688	.023**
	Psychologist	-3.46160	2.40087	.480
	social worker	3.50196	2.08553	.330
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post hoc results (table 4.51) indicated that emotional intelligence of psychologists (M = 80.57, SD = 9.78, p = <0.05) and nurses (M = 77.11, SD = 9.18, p = <0.05) is significantly different from that of psychiatrists (M = 72.36, SD = 11.95). As the p value is less than 0.05 the difference was found to be significant and null hypothesis was rejected. Post hoc test couldn't reveal any significant difference in emotional intelligence skill of social workers as compared to other employee categories. Among mental healthcare employees psychologists possessed a high level of emotional intelligence. Nurses, psychiatrists and social workers showed a medium level emotional intelligence where social workers scored the lowest.

Work Experience based comparison:

The difference in emotional intelligence of mental healthcare employees was examined based on their work experience. One way ANOVA was conducted to examine the significance of mean differences in emotional intelligence of mental healthcare employees based on their work experience in their respective organisations. Employees were classified in to three categories as low experienced, moderately experienced and highly experienced.

Table 4.52

Comparison of EI Based on Work Experience

Work Experience	N	Mean	SD	F value	p value
Low Experienced	132	70.79	5.41	272.478	.000
Moderately Experienced	105	75.05	5.67		
Highly Experienced	48	94.12	7.71		

Source: Survey data

As per one way ANOVA results (table 4.52) mental healthcare employees were found to be significantly different in emotional intelligence skill based on their experience. The difference in mean score was found to be significant as the p value was less than 0.05 ($F(2, 282) = 272.478$, $p = <0.001$). Null hypothesis was rejected to establish a statistically significant difference among highly, moderately and low experienced mental healthcare employees. For precise analysis of the differences and understanding clearly the cause for difference in mean scores, Post hoc comparisons were conducted using the Tukey HSD test.

Table 4.53

Comparison of EI Based on Work Experience, Post Hoc Tests

Work Experience (I)	Work Experience (J)	Mean Difference (I-J)	Std. Error	Sig.
Low Experienced	Moderately Experienced	-4.26169*	.77832	.000**
	Highly Experienced	-23.32955*	1.00322	.000**
Moderately Experienced	Low Experienced	4.26169*	.77832	.000**
	Highly Experienced	-1.19174*	.06490	.000**
Highly Experienced	Low Experienced	1.45573*	.06279	.000**
	Moderately Experienced	1.19174*	.06490	.000**
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post hoc results revealed that the emotional intelligence levels of highly experienced, moderately experienced and low experienced mental healthcare employees are significantly different from each other (table 4.53). Highly experienced employees (M = 94.12, SD = 7.71) were found to be very high in emotional intelligence skill. Moderately experienced (M = 75.05, SD = 5.67) and low experienced (M = 70.79, SD = 5.41) showed a medium level of emotional intelligence skill where low experienced employees scored a lowest score. As p value was less than 0.05 at 0.05 significance level for each three category of experience, null hypothesis was rejected and significant difference was established between each category in the ability to appraise, use and regulate emotions in self and others. The results are consistent with the findings of Aryee, Wyatt and Stone,1996; Judge and Bretz ,1994; Judge et al., 1995; Nabi, 1999 who considered work experience as an important variable that can affect emotional intelligence.

4.9 Summarised Results of Hypotheses Tested

The summary of hypotheses formulated and tested, its p values and results are given in the table

Table 4.54

Summarised Results of Hypotheses

S. No.	Hypotheses	Test	P Value	Results
1	There is no significant difference in self emotion appraisal of mental health employees based on gender	Independent Samples T Test	<0.001	H_0 Rejected
2	There is no significant difference in self emotion appraisal of mental health employees based on marital status	Independent Samples T Test	<0.001	H_0 Rejected
3	There is no significant difference in self emotion appraisal of mental health employees based on organisational sector	Independent Samples T Test	0.099	H_0 Not Rejected
4	There is no significant difference in self emotion appraisal of mental health employees based on designation	One Way ANOVA	0.061	H_0 Not Rejected
5	There is no significant difference in self emotion appraisal of mental health employees based on experience	One Way ANOVA	<0.001	H_0 Rejected
6	There is no significant difference in others' emotion appraisal of mental health employees based on gender	Independent Samples T Test	0.008	H_0 Rejected
7	There is no significant difference in others' emotion appraisal of mental health employees based on marital status	Independent Samples T Test	<0.001	H_0 Rejected
8	There is no significant difference in others' emotion appraisal of mental health employees based on organisational sector	Independent Samples T Test	0.645	H_0 Not Rejected

S. No.	Hypotheses	Test	P Value	Results
9	There is no significant difference in others' emotion appraisal of mental health employees based on designation	One Way ANOVA	0.270	H_0 Not Rejected
10	There is no significant difference in others' emotion appraisal of mental health employees based on experience	One Way ANOVA	<0.001	H_0 Rejected
11	There is no significant difference in use of emotion of mental health employees based on gender	Independent Samples T Test	0.078	H_0 Not Rejected
12	There is no significant difference in use of emotion of mental health employees based on marital status	Independent Samples T Test	<0.001	H_0 Rejected
13	There is no significant difference in use of emotion of mental health employees based on organisational sector	Independent Samples T Test	0.626	H_0 Not Rejected
14	There is no significant difference in use of emotion of mental health employees based on designation	One Way ANOVA	0.001	H_0 Rejected
15	There is no significant difference in use of emotion of mental health employees based on experience	One Way ANOVA	<0.001	H_0 Rejected
16	There is no significant difference in regulation of emotion of mental health employees based on gender	Independent Samples T Test	0.031	H_0 Rejected
17	There is no significant difference in regulation of emotion of mental health employees based on marital status	Independent Samples T Test	<0.001	H_0 Rejected
18	There is no significant difference in regulation of emotion of mental health employees based on organisational sector	Independent Samples T Test	0.853	H_0 Not Rejected
19	There is no significant difference in regulation of emotion of mental health employees based on designation	One Way ANOVA	<0.001	H_0 Rejected

S. No.	Hypotheses	Test	P Value	Results
20	There is no significant difference in regulation of emotion of mental health employees based on experience	One Way ANOVA	<0.001	H_0 Rejected
21	There is no significant difference in emotional intelligence of mental health employees based on gender	Independent Samples T Test	0.001	H_0 Rejected
22	There is no significant difference in emotional intelligence of mental health employees based on marital status	Independent Samples T Test	<0.001	H_0 Rejected
23	There is no significant difference in emotional intelligence of mental health employees based on organisational sector	Independent Samples T Test	0.944	H_0 Not Rejected
24	There is no significant difference in emotional intelligence of mental health employees based on designation	One Way ANOVA	0.004	H_0 Rejected
25	There is no significant difference in emotional intelligence of mental health employees based on experience	One Way ANOVA	<0.001	H_0 Rejected

Source: Survey data

References

Afolabi A.O., Adesina A.A. (2006). Influence of job frustration, narcissism and demographic variables on attitudes towards professional ethical behavior among Nigerian police officers. *Afr J Psychol Study Soc,* 9, 37 - 45.

Aryee, S., Wyatt, T., & Stone, R. (1996). Early career outcomes of graduate employees: The effect of mentoring and ingratiation. *Journal of Management Studies*, 33, 95-118.

Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory (EQ-i). In R. Bar-On and J. D. A. Parker (Eds.), *Handbook of emotional intelligence*. San Francisco: Jossey-Bass.

Baumgartner, H. & Homburg, C. (1996), Applications of structural modeling in marketing and consumer research: A review, *International Journal of Research in Marketing*, 13, 139 - 161.

Bhanu Priya. (2018). Emotional Intelligence: A Study on Public and Private Sector Bank Managers, *International Journal of Creative Research Thoughts*, 209 – 216.

Chou, C. P., & Bentler, P. M. (1995). Estimates and tests in structural equation modeling. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications*, 37-55, Thousand Oaks: Sage Publications.

Daus, C. S., & Ashkanasy, N. M. (2005). The case for the ability - based model of emotional intelligence in organisational behaviour. *Journal of Organisational Behavior*, 26, 453 - 466.

Day A.L., Carroll S.A. (2004). Using an ability-based measure of emotional intelligence to predict individual performance, group performance, and group citizenship behaviors. *Pers Individ Dif,* 36, 1443 - 1458.

Deshwal, S. (2015). A Comparison of Emotional Intelligence between Government and Private Sector Employees. *International Journal of Applied Research* 1 (4), 177 – 178.

Ealias, A., & George, J. (2012). Emotional intelligence and job satisfaction: A Correlational study. *Research Journal of Comerce & Behavioural Science,* 1 (4), 37 - 42.

Fornell, C. and Larcker, D.F. (1981) Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18, 39 - 50.

Grewal, D., Salovey, P. (2005). Feeling smart: the science of emotional intelligence. *Am Sci*, 93, 330.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). Multivariate data analysis. *Upper Saddle River*, NJ: Prentice Hall.

Hulland, J. Chow, YH. & Lam, S. (1996) Use of casual models in marketing research: A review, *International Journal of Research in Marketing*, 13, 181 - 197.

Judge, T. A., & Watanabe, S. (1994). Individual differences in the nature of the relationship between job and life satisfaction. *Journal of Occupational and Organisational Psychology*, 67, 101–107.

Judge, T. A., Erez, A. and Martocchio, J. J. (1995, May). 'The effects of negative affectivity and selfdeception on the relationship between the reporting of stress and health complaints', *Paper presented at the Society for Industrial and Organisational Psychology convention*, Lake Buena Vista, FL.

Kafetsios, K., & Loumakou, M. (2007). A comparative evaluation of the effects of trait emotional intelligence and emotion regulation on affect at work and job satisfaction. *International Journal of Work Organisation and Emotion*, 2(1), 71 - 87.

Kaiser, H.F. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36.

Kalyoncu Z., Guney, S., Arslan, M., Guney, S., & Ayranci, E. (2012). Analysis of the relationship between emotional intelligence and stress caused by organisation: A study of nurses. *Business Intelligence Journal*, 5 (2), 334 - 346.

Kassim, NM. (2001) *Determinants of customer satisfaction and retention in the cellular phone market of Malaysia*, PhD thesis, Southern Cross University, Lisbon.

Ketkar, S., Kock, N., Parente, R., & Verville, J. (2012). The impact of individualism on buyer-supplier relationship norms, trust and market performance: An analysis of data from Brazil and the U.S.A. *International Business Review*, 21(5), 782 - 793.

Nabi, G. R. (1999). An investigation into the differential profile of predictors of objective and subjective career success. *Career Development International*, 4, 212 - 224.

Pande, HS. (2010). Evaluating characteristics and emotional intelligence among workers in organisations in the state of Rajasthan. *Int Res J*, 1, 3 - 6.

Sy, T., Tram, S., & O'Hara, L. A. (2006). Relation of employee and manager emotional intelligence to job satisfaction and performance. *Journal of Vocational Behavior*, 68, 461 - 473.

Tabachnick, B.G. and Fidell, L.S. (2001) *Using Multivariate Statistics*. 4th Edition, Allyn and Bacon, Boston.

Tokpam, Rojina., Saikia, Jinamoni. and Borah, Tulika. (2015). Emotional intelligence of adults working in government and non - government organisations. *Adv. Res. J. Soc. Sci.*, 6 (1), 77 - 81.

CHAPTER 5

ORGANISATIONAL COMMITMENT OF MENTAL HEALTHCARE EMPLOYEES

Contents ..... Page No.

5.1 Introduction

Organisational commitment is a widely discussed topic in the field of human resource management bearing an important role in the study of organisational behaviour and is very popular in the literature of industrial and organisational psychology. Simply defined, it is a psychological attachment an employee has with his organisation. It is "an attachment to the organisation characterised by an intention to remain in it; identification with the values and goals of the organisation; and a willingness to exert extra effort on its behalf" (Porter et al, 1974). Plenty of research studies have been undertaken to conceptualize this construct leaving back abundant literature describing different antecedents, precedents, determinants, outcomes and immediate causes.

This chapter attempts to fulfil the second objective of the study i.e. assessing the organisational commitment level of mental healthcare employees in Kerala. The chapter examines and assesses the organisational commitment level of mental healthcare employees in Kerala based on the Survey data to answer the prominent research questions:

- What is the organisational commitment level of mental healthcare employees in Kerala?
- What effect demographic variables have on organisational commitment?

The analysis and interpretation of the data was undertaken based on the data collected from employees working in mental healthcare sector of Kerala that include both private and public institutions. The analysis tools like IBM SPSS Statistics 20 and Amos Graphics; Statistical tests like descriptive statistics, T – Test, ANOVA and Post Hoc were used for analysis purposes and hypothesis testing.

In this study organisational commitment of mental healthcare employees was measured using Revised Version (Meyer, Allen, & Smith, 1993) of Three Component Model (TCM) Employee Commitment Survey as developed by Meyer, Allen and Smith. It is a well know and psychometrically sound tool widely used

throughout the world to assess the organisational commitment. Organisational Commitment is defined in this model as "a psychological state that characterises the employee's relationship with the organisation" (Meyer, Allen, & Smith, 1993). It is conceptualised in three broad approaches as affective, continuance and normative. Based on the Three-Component Model (TCM) of commitment (Myer & Allen, 1991; 1997), the TCM Employee Commitment Survey measures three forms of employee commitment namely affective commitment (desire-based), continuance commitment (obligation-based) and normative commitment (cost-based). Employees respond to a series of statements pertaining to their relationship with the organisation and their reason for staying. The scale was validated by conducting exploratory and confirmatory factor analyses using SPSS. The factor structure, cronbach alpha values, content validity, convergent validity and discriminant validity of the scale are discussed in detail in the chapter.

Three levels of organisational commitment, affective commitment, continuance commitment and normative commitment of respondents were measured based on the means scores obtained on organisational commitment scale. The scores obtained on subscales of affective commitment, continuance commitment and normative commitment were calculated separately and total organisational commitment score was calculated by summing up these scores obtained on three subscales. The scores on three OC subscales range from 6 to 42 and the total score of OC range from 18 to 126. Organisational commitment of respondents are classified on three major levels as low level, medium level and high level based on tertiary deviation of total score. The first 1/3 of the score is considered as low level, the second 1/3 of the score is considered as the medium level and the third one third is considered as the high level. The following table 5.1 depicts the cut off scores for identifying the organisational commitment levels:

Table 5.1

Cut off Scores of the Organisational Commitment Scale

Scales	Low Level	Medium Level	High Level
Affective Commitment Scale	6.00 – 18.00	18.01 – 30.00	30.01 – 42.00
Continuance Commitment Scale	6.00 – 18.00	18.01 – 30.00	30.01 – 42.00
Normative Commitment Scale	6.00 – 18.00	18.01 – 30.00	30.01 – 42.00
Overall Organisational Commitment	18.00 – 54.00	54.01 – 90.00	90.01 – 126.00

Source: Survey data

Based on the major topics analysed and evaluated, the chapter is divided into five sections for easy understanding of the interpreted data. These five sections include:

- Section A: Validation of the Organisational Commitment Scale
- Section B: Affective Commitment (AC) of mental healthcare employees
- Section C: Continuance Commitment (CC) of mental healthcare employees
- Section D: Normative Commitment (NC) of mental healthcare employees
- Section E: Total Organisational Commitment (OC) of mental healthcare employees

5.2 Demographic Profile of the Respondents

Out of the 285 respondents 122 respondents are males and 163 respondents are females. 57% of the respondents are married and 34% are single. Respondents are consisted of different occupational status as nurse (196), psychiatrists (44), psychologists (19) and social worker (26). Respondents from private institutions occupy 73% and 77 respondents belongs to public sector. Based on experience respondents are divided into three categories as low experienced (132), moderately experienced (105) and high experienced (48) (Table 5.2).

Table 5.2

Demographic Profile of Respondents

Category	Status	Frequency	Percent	Total
Gender	Male	122	42	285
	Female	163	57	
Marital status	Single	98	34	285
	Married	187	65	
Occupation	Nurse	196	68	285
	Psychiatrist	44	15	
	Psychologist	19	6	
	Social Worker	26	9	
Organisation	Public Sector	77	27	285
	Private Sector	208	73	
Work Experience	Low experienced	132	46	285
	Moderately experienced	105	36	
	High experienced	48	16	

Source: Survey data

5.3 Section A: Validation of the Organisational Commitment Scale

Organisational Commitment is identified as "a psychological state that characterises the employee's relationship with the organisation" (Meyer, Allen, & Smith, 1993). Organisational commitment is generally conceptualised in three approaches as affective, continuance and normative. It refers to the attachment of employees to their organisation characterised by their intention to remain in their respective organisations. It is their identification with the values and goals of the organisation and their willingness to exert extra effort for the sake of organisation. Revised Version (Meyer, Allen, & Smith, 1993) of Three Component Model (TCM) Employee Commitment Survey as developed by Meyer, Allen and Smith was used in this study to measure the organisational commitment of mental healthcare employees with prior permission. It is a well known and psychometrically sound tool widely used throughout the world to assess the organisational commitment.

Based on the Three-Component Model (TCM) of commitment (Myer & Allen, 1991; 1997), the TCM Employee Commitment Survey measures three forms of employee commitment to an organisation: desire-based, obligation-based and cost-based. Employees respond to a series of statements pertaining to their relationship with the organisation and their reason for staying. TCM Employee Commitment Survey Scale was validated and factor structure, factor loadings and different scale validities were once again confirmed for this study by conducting exploratory and confirmatory factor analyses using SPSS and Amos software packages.

5.3.1 Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is a multivariate statistical technique used to reduce a given data to a smaller set of summary variables. It is used to explore the underlying theoretical structure of the phenomena studied. It identifies the structure of the relationship between a variable and respondents in a dataset and provides a factor structure by grouping the variables based on strong correlations. Organisational commitment scale was subjected to factor analysis in order to explore and identity the accurate factors of organisational commitment. All eighteen statements under three subscales of TCM Employee Commitment Survey Scale were subjected to the factor analysis. Primarily the two tests of Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett Test of Sphericity was done to know and verify the adequacy and appropriateness of dataset for factorisation. The Kaiser-Meyer-Olkin measure of sampling adequacy is an index used for comparing the magnitude of observed correlation coefficients to the magnitude of the partial correlation coefficients. Usually KMO score vary between zero and one where zero indicates the largeness of partial correlation in relation to the sum of correlation that makes factorisation impossible. If the value is close to one it indicates that pattern of correlation are relatively compact and factorisation can be conducted for extracting distinct and reliable factors.

Table 5.3

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy:		.899
Bartlett's Test of Sphericity:	**Approx. Chi-Square**	2051.740
	Df	153
	Sig.	.000

Source: Survey data

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was found to be 0.899 and the Bartlett Test of Sphericity was significant ($p < 0.001$) as the Chi Square value is 2051.740 with 153 degrees of freedom. As the value of the test statistic for sphericity is large and the associated significance level is small, it is seemed that the population correlation matrix is not an identity. It clearly provides support for factorisation and doing further analyses (Table 5.3).

As the data was found adequate for factorisation the factor analysis was conducted using exploratory factor analysis in SPSS. Principal Component Analysis method was used for extraction and Varimax with Kaiser Normalization method was used for rotation in this study. The rotation was converged in five iterations. Table 5.4 below provides the details of each factor in organisation commitment scale along with the items contributing to it and the component loadings for each item. Table 5.4 below provides the details of each factor in organisational commitment scale along with items contributing it and component loadings for each item.

Table 5.4

Rotated Component Matrix

S. No.	Statements	Component		
		1	2	3
A1	I feel "emotionally attached" to this organisation.	.789		
A2	I feel a strong sense of "belonging" to my organisation.	.778		
A3	I really feel as if this organisation's problems are my own.	.762		
A4	I feel like "part of the family" at my organisation.	.757		
A5	I would be very happy to spend the rest of my career with this organisation.	.740		
A6	This organisation has a great deal of personal meaning for me.	.709		
B1	Right now, staying with my organisation is a matter of necessity as much as desire.		.777	
B2	It would be very hard for me to leave my organisation right now, even if I wanted to.		.726	
B3	Too much of my life would be disrupted if I decided I wanted to leave my organisation now.		.724	
B4	I feel that I have too few options to consider leaving this organisation.		.707	
B5	One of the few negative consequences of leaving this organisation would be the scarcity of available alternatives.		.706	
B6	If I had not already put so much of myself into this organisation, I might consider working elsewhere.		.672	
C1	I feel an obligation to remain with my current employer.			.682
C2	This organisation deserves my loyalty.			.676
C3	I would not leave my organisation right now because I have a sense of obligation to the people in it.			.674
C4	Even if it were to my advantage, I do not feel it would be right to leave my organisation now.			.652
C5	I would feel guilty if I left my organisation now.			.643
C6	I owe a great deal to my organisation.			.629
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 5 iterations.				

Source: Survey data

The table 5.4 illustrates the Rotated Component Matrix. All variables with factor loadings above 0.60 were selected for the study. After performing Varimax Rotation Method in Kaiser Normalisation, the first factor named as Affective Commitment comprised of six items. These items include A1, A2, A3, A4, A5 and A6. In first factor the item A1 showed more (.789) loading followed by A2 (.778). The loadings of A5 and A6 are .740 and .709 respectively. The second factor named Continuance Commitment comprised of six items as B1, B2, B3, B4, B5 and B6. Among these four items B1 (.777) showed the highest loading and B6 (.672) showed the lowest loading. The third factor named as Absorption also six items namely C1, C2, C3 and C4, C5 and C6 in which C1 (.682) showed more loading and C6 (.629) showed the less loading.

5.3.2 Factor Name, Variance and Reliability

The rotated component matrix explains that all statements were loaded as per the original adopted TCM Employee Commitment Survey Scale. The first six statements were grouped under the component of affective commitment, the next six statements under the component of continuance commitment and the last six statements under the component of normative commitment. The explained variance and reliability of rotated factors are illustrated in the below table as obtained from the output of factor analysis (Table 5.5). It clearly indicates that all extracted factors have adequate reliability as the Cronbach's alpha is above 0.700 for all three factors.

Table 5.5

Factor Name, Variance and Reliability

Factor	Variance	Reliability (Cronbach's Alpha)	Factor Name
1	21.126	0.882	**Affective Commitment**
2	19.539	0.860	**Continuance Commitment**
3	15.533	0.759	**Normative Commitment**

Source: Survey data

5.3.3 Confirmatory Factor Analysis for Organisational Commitment Scale

As exploratory factor analysis could extract three factors as explained in original scale the next step is to conduct a confirmatory factor analysis to finalise and confirm the 'organisational commitment' construct identified. The data for analysis were found free from missing values and outliers.

5.3.4 Measurement model of 'Organisational Commitment'

The measurement model of organisational commitment was developed. It was mainly based on three subcomponents or factor of organisational commitment as affective commitment, continuance commitment and normative commitment.

The measurement model for organisational commitment as shown in fig 5.1 was tested by a Confirmatory Factor Analysis by using Amos 21. This measurement model was developed to assess the organisational commitment of mental healthcare employees related with certain demographic factors as gender, marital status, organisation, occupation and experience. The reliability of the scale developed was confirmed through Cronbanch's alpha value method.

The structural equation model using Amos provides several indices of fit like measure of absolute fit, comparative fit, and parsimonious fit etc. The table 5.6 below provides the major model fit indices and its obtained values for organisational commitment model.

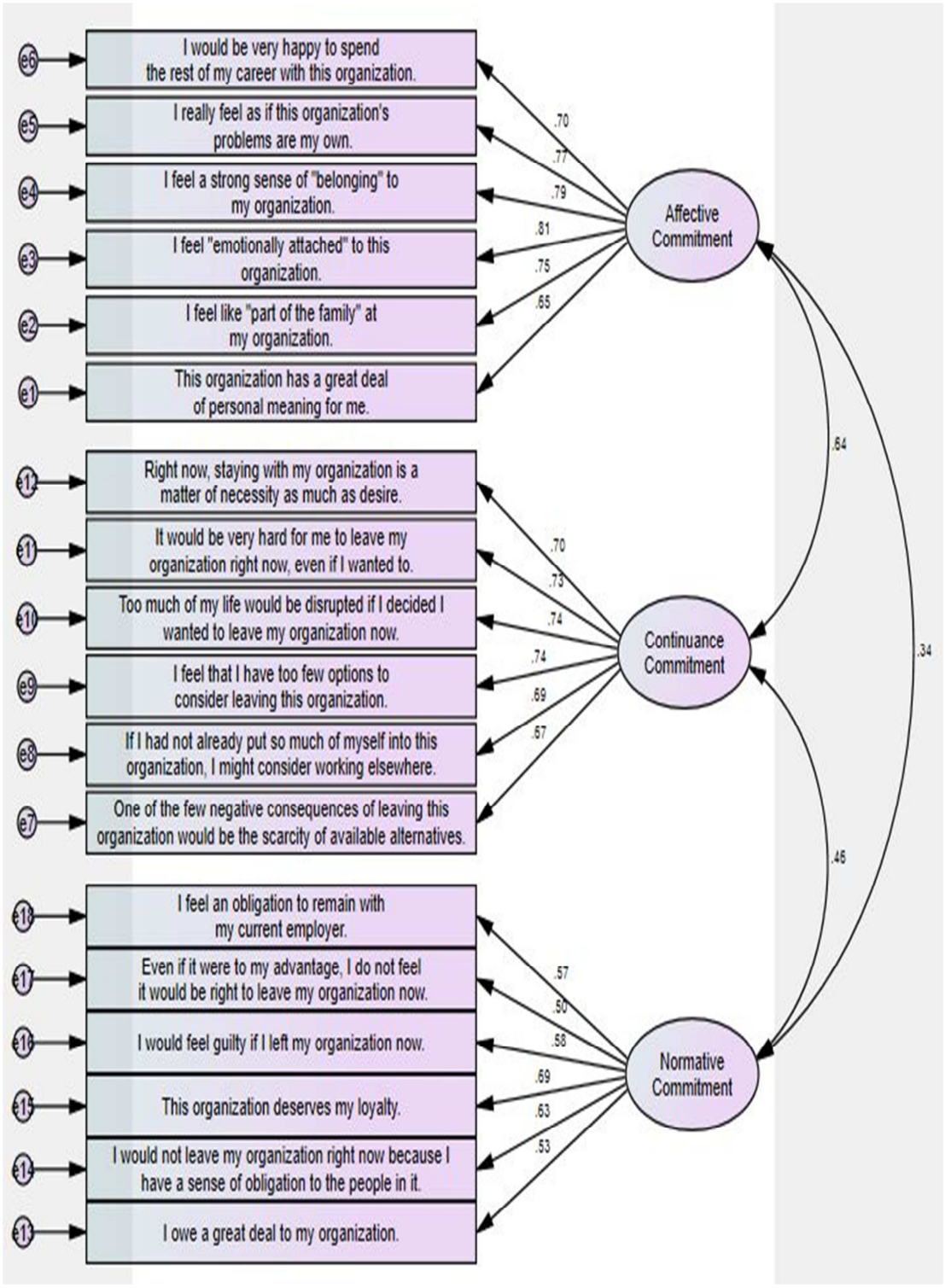


Fig 5.1: Measurement Model for Organisational Commitment

Table 5.6

Model fit Indices

Model fit	Values	
	Obtained	**Recommended**
CMIN / DF	2.69	<5
RMR	0.041	<0.05
GFI	0.910	>0.9
AGFI	0.913	>0.9
PGFI	0.891	>0.9
NFI	0.918	>0.9
RFI	0.924	>0.9
IFI	0.919	>0.9
TLI	0.917	>0.9
CFI	0.930	>0.9
RMSEA	0.063	<0.08

Source: Survey data

Table 5.6 shows the different model fit indices of the confirmatory factor analysis. Usually a measurement model with model fit indices of greater than 0.09 and Root Mean Square Error of Approximation (RMSEA) less than 0.08 is considered to be close fit with the dataset. The measurement model of organisational commitment was found to be good fitting model with recommended indices as given in Table 5.6. All the paths shown in the model are significant as critical ratios were above 1.96.

5.3.5 Validation of the Organisational Commitment Scale

After the development of organisational commitment instrument it was subjected for validation tests to ensure that the developed instrument really measure organisational commitment construct. For any measuring instrument validity and reliability are the two critical criteria that verify the degree to which a measuring instrument measures what is supposed to measure. Various validity tests were performed to assess the goodness of measures of the instrument. Validation tests

such as convergent and discriminant validities were conducted. The detailed analysis is given below.

Convergent Validity

Convergent validity tests establish whether responses to the questions are sufficiently correlated with the respective latent variables. Convergent validity is usually assessed based on the comparison of loadings calculated through a non-confirmatory analysis with a fixed value (Ketkar, Kock, Parente & Verville, 2012). Two criteria are recommended as the basis for concluding that a measurement model has acceptable convergent validity: p values associated with the loadings should be lower than 0.05 and loadings for indicators of all respective latent variables must be 0.5 or above for the convergent validity of a measure to be acceptable (Hair et al., 2009).

Table 5.7

Factor loadings and p values for "Organisational Commitment"

S. No.	Statements	Estimate	P value
A1	I feel "emotionally attached" to this organisation ← Affective Commitment	.647	<0.001
A2	I feel a strong sense of "belonging" to my organisation ← Affective Commitment	.751	<0.001
A3	I really feel as if this organisation's problems are my own ← Affective Commitment	.813	<0.001
A4	I feel like "part of the family" at my organisation ← Affective Commitment	.791	<0.001
A5	I would be very happy to spend the rest of my career with this organisation ← Affective Commitment	.766	<0.001
A6	This organisation has a great deal of personal meaning for me ← Affective Commitment	.696	<0.001
B1	Right now, staying with my organisation is a matter of necessity as much as desire ← CC	.669	<0.001
B2	It would be very hard for me to leave my organisation right now, even if I wanted to ← CC	.691	<0.001

S. No.	Statements	Estimate	P value
B3	Too much of my life would be disrupted if I decided I wanted to leave my organisation now ← Continuance Commitment	.744	<0.001
B4	I feel that I have too few options to consider leaving this organisation ← Continuance Commitment	.741	<0.001
B5	One of the few negative consequences of leaving this organisation would be the scarcity of available alternatives ← Continuance Commitment	.728	<0.001
B6	If I had not already put so much of myself into this organisation, I might consider working elsewhere ← Continuance Commitment	.697	<0.001
C1	I feel an obligation to remain with my current employer ← Normative Commitment	.534	<0.001
C2	This organisation deserves my loyalty ← Normative Commitment	.630	<0.001
C3	I would not leave my organisation right now because I have a sense of obligation to the people in it ← Normative Commitment	.694	<0.001
C4	Even if it were to my advantage, I do not feel it would be right to leave my organisation now ← Normative Commitment	.581	<0.001
C5	I would feel guilty if I left my organisation now ← Normative Commitment	.502	<0.001
C6	I owe a great deal to my organisation ← Normative Commitment	.575	<0.001

Source: Survey data

The output clearly indicates that the factor loadings associated with the latent variables ranges between 0.502 and 0.813 as shown in Table 5.7. Hence it is reasonable to assume that the measurement model for the construct of organisational commitment has acceptable convergent validity.

Discriminant Validity

Discriminant validity tests verify whether responses from the respondents to the questions are either correlated or not with other latent variables. A measurement model has acceptable discriminant validity if the square root of the average variance extracted (AVE) for each latent variable is higher than any of the correlations between the latent variable under consideration and any of the other latent variables in the measurement model (Fornell & Larcker, 1981).

Table 5.8

Average Variance Extracted and Inter construct correlation

Factors	AVE	Correlation	
Affective Commitment	0.75	Affective Commitment ↔ Continuance Commitment	0.64
Continuance Commitment	0.71	Affective Commitment ↔ Normative Commitment	0.34
Normative Commitment	0.58	Continuance Commitment↔ Normative Commitment	0.46

Source: Survey data

Discriminant validity was confirmed by examining correlations among the constructs. As a rule of thumb, a correlation of 0.85 degree or above indicates poor discriminant validity in structural equation modelling (David 1998). In organisational commitment construct none of the correlations among variables were found to be above 0.85 (Table 5.8) and adequate discriminant validity was suggested for the measurement model.

In addition, to confirm discriminant validity, the inter construct correlation were calculated and compared with average variance extracted. In this measurement model all variance extracted (AVE) estimates were larger than the squared inter construct correlation estimates (Table 5.8) and the discriminant validity was confirmed.

Normality

For effective analyses and accurate results most of the statistical methods and tools require the assumption that the variables observed are normally distributed. In multivariate statistics, the assumption is that the combination of variables follows a multivariate normal distribution. Since there is no direct test for multivariate normality, we generally test each variable individually and assume that they are multivariate normal if they are individually normal, though this may not be necessarily the case. In SEM model, estimation and testing are usually based on the validity of multivariate normality assumption, and lack of normality will adversely affect goodness-of-fit indices and standard errors (Baumgartner and Homburg 1996; Hulland et al 1996; Kassim 2001). The univariate normality of the variables was tested using Kolomogorov- Smirnov test with Lillefors significance correction.

Table 5.9

One-Sample Kolmogrov- Smirnov Test

S. No.	Statements	N	Std. Deviation	Sig
A1	I would be very happy to spend the rest of my career with this organisation.	285	1.117	0.000
A2	I really feel as if this organisation's problems are my own.	285	1.119	0.000
A3	I feel a strong sense of "belonging" to my organisation.	285	1.147	0.000
A4	I feel "emotionally attached" to this organisation.	285	1.114	0.000
A5	I feel like "part of the family" at my organisation.	285	1.114	0.000
A6	This organisation has a great deal of personal meaning for me.	285	1.086	0.000
B1	Right now, staying with my organisation is a matter of necessity as much as desire.	285	1.014	0.000
B2	It would be very hard for me to leave my organisation right now, even if I wanted to.	285	1.008	0.000
B3	Too much of my life would be disrupted if I decided I wanted to leave my organisation now.	285	1.073	0.000

S. No.	Statements	N	Std. Deviation	Sig
B4	I feel that I have too few options to consider leaving this organisation.	285	.995	0.000
B5	If I had not already put so much of myself into this organisation, I might consider working elsewhere.	285	1.047	0.000
B6	One of the few negative consequences of leaving this organisation would be the scarcity of available alternatives.	285	1.042	0.000
C1	I feel an obligation to remain with my current employer.	285	1.092	0.000
C2	Even if it were to my advantage, I do not feel it would be right to leave my organisation now.	285	1.140	0.000
C3	I would feel guilty if I left my organisation now.	285	1.039	0.000
C4	This organisation deserves my loyalty.	285	1.054	0.000
C5	I would not leave my organisation right now because I have a sense of obligation to the people in it.	285	1.073	0.000
C6	I owe a great deal to my organisation.	285	1.038	0.000

Source: Survey data

The results of the Kolomogorov- Smirnov test with Lillefors significance correction as given in table 5.9 revealed that none of the variables are normally distributed.

Statisticians and researchers usually use skewness and kurtosis tests for assuming the normality of certain variables. Skewness refers to the symmetry or asymmetry of a distribution whereas kurtosis relates to the peakedness of a distribution. A distribution is said to be normal when the values of skewness and kurtosis are equal to zero (Tabachnick and Fidell; 2001). However, there are few clear guidelines about how much non-normality is problematic. It is suggested that absolute values of univariate skewness indices greater than 3.0 seem to describe extremely skewed data sets (Chou and Bentler 1995). In kurtosis a kurtosis index greater than 10.0 is considered as problematic.

Table 5.10

Skewness and Kurtosis

S. No.	Statements	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
A1	I would be very happy to spend the rest of my career with this organisation.	-.155	.144	-.507	.288
A2	I really feel as if this organisation's problems are my own.	-.039	.144	-.681	.288
A3	I feel a strong sense of "belonging" to my organisation.	-.071	.144	-.663	.288
A4	I feel "emotionally attached" to this organisation.	.095	.144	-.704	.288
A5	I feel like "part of the family" at my organisation.	-.142	.144	-.738	.288
A6	This organisation has a great deal of personal meaning for me.	-.039	.144	-.709	.288
B1	Right now, staying with my organisation is a matter of necessity as much as desire.	.061	.144	-1.009	.288
B2	It would be very hard for me to leave my organisation right now, even if I wanted to.	.026	.144	-.786	.288
B3	Too much of my life would be disrupted if I decided I wanted to leave my organisation now.	-.138	.144	-.868	.288
B4	I feel that I have too few options to consider leaving this organisation.	-.069	.144	-.831	.288
B5	If I had not already put so much of myself into this organisation, I might consider working elsewhere.	-.219	.144	-.427	.288
B6	One of the few negative consequences of leaving this organisation would be the scarcity of available alternatives.	-.186	.144	-.763	.288
C1	I feel an obligation to remain with my current employer.	-.257	.144	-.381	.288
C2	Even if it were to my advantage, I do not feel it would be right to leave my organisation now.	-.372	.144	-.463	.288
C3	I would feel guilty if I left my organisation now.	-.301	.144	-.583	.288
C4	This organisation deserves my loyalty.	-.254	.144	-.594	.288
C5	I would not leave my organisation right now because I have a sense of obligation to the people in it.	-.174	.144	-.870	.288
C6	I owe a great deal to my organisation.	-.061	.144	-.745	.288

Source: Survey data

The results as shown in table 5.10 reveal that all the variables in this model fall under the kurtosis value of 10 and Skewness value of 3. Thus it can be inferred that the kurtosis and skewness values were not problematic in this study and parametric test can be used for analysis purposes.

5.4 Section B: Affective Commitment of Mental Healthcare Employees

Affective commitment represents the emotional attachment of an employee towards his organisation. Meyer and Allen describe it as "employee's emotional attachment to, identification with, and involvement in the organisation" (Meyer & Allen, 1997). "Organisational members, who are committed to an organisation on an affective basis, continue working for the organisation because they want to" (Meyer & Allen, 1991). "Members who are committed on an affective level stay with the organisation because they view their personal employment relationship as congruent to the goals and values of the organisation" (Beck & Wilson, 2000). "Affective commitment is a work related attitude with positive feelings towards the organisation" (Morrow, 1993). Sheldon (1971) also maintains that this type of attitude is "an orientation towards the organisation, which links or attaches the identity of the person to the organisation". Affective commitment is "the relative strength of an individual's identification with and involvement in a particular organisation" (Mowday et al, 1982).

The affective commitment level of mental healthcare employees in Kerala (n= 285) was assessed using the descriptive statistics. The mean score in affective commitment scale (M = 29.01, SD = 5.30) as shown in table 5.11 revealed that mental healthcare employees in Kerala are at medium level of affective commitment. It means that mental healthcare employees have an average level of emotional attachment with their organisation.

Table 5.11

Affective Commitment of Mental Healthcare Employees

AC of mental healthcare employees					
Dimension	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
AC	285	15.00	41.00	29.01	5.30
Valid N (listwise)	285				

Source: Survey data

5.4.1 Category wise Affective Commitment of mental healthcare employees

Affective commitment level of mental healthcare employees in each category was calculated separately. The table 5.12 provide the major values obtained.

Table 5.12

Category Wise AC of Mental Healthcare Employees

Category	Status	N	Mean	SD
Gender	Male	122	25.90	3.48
	Female	163	31.34	5.24
Marital status	Single	98	27.42	4.85
	Married	187	29.84	5.35
Occupation	Psychiatrist	44	23.40	2.51
	Psychologist	19	26.78	1.84
	Social Worker	26	23.23	3.92
	Nurse	196	31.25	4.50
Organisation	Public Sector	77	30.20	6.70
	Private Sector	208	28.57	4.62
Work Experience	Low experienced	132	28.20	5.16
	Moderately experienced	105	28.60	5.20
	High experienced	48	32.12	4.88

Source: Survey data

Affective commitment scores as shown in table 5.12 reveal that employees in different categories are at medium and high levels of affective commitment. In gender category male employees (M = 25.90, SD = 3.48) possessed a medium level of affective commitment and female employees (M = 31.34, SD = 5.24) scored a

high level. In the category of marital status both married (M = 29.84, SD = 5.35) and unmarried employees (M = 27.42, SD = 4.85) scored a medium level affective commitment skill. In occupation category nurses (M = 31.25, SD = 4.50) scored a high level and psychologists (M = 26.78, SD = 1.84), psychiatrists (M = 23.40, SD = 2.51) and social workers (M = 23.23, SD = 3.92) scored a medium level. In the category of organisation public sector employees (M = 30.20, SD = 6.70) scored high and private sector employees (M = 28.57, SD = 4.62) scored medium. Based on experience, highly experienced employees (M = 32.12, SD = 4.88) scored high level while low experienced (M = 28.20, SD = 5.16) and moderately experienced employees (M = 28.60, SD = 5.20) scored a medium level of self affective commitment skill. The highly experienced employees scored the highest in affective commitment subscale while social workers scored the lowest among all employee categories.

5.4.2 Comparisons of Affective Commitment Based on Demographics:

The mean scores of Affective Commitment (AC) of mental healthcare employees were compared based on the major five demographic factors explored in the study. These demographic factors include gender, marital status, occupational status, organisation and work experience. Statistical tests like T test, ANOVA and Post Hoc tests were used to test the hypotheses.

Gender based comparison:

The Affective Commitment of mental healthcare employees was examined based on their gender. T test was used to assess the mean differences in Affective Commitment based on gender. As per T test results shown in table 5.13 the Affective Commitment of male employees (M = 25.90, SD = 3.48) and female employees (M = 31.34, SD = 5.24) were found to differ significantly; t (283) = -10.497, p = <0.001. Female employees scored a higher level of affective commitment compared to male employees who scored a medium level of affective commitment. Female employees significantly differed from their male counterparts with a high score in affective commitment scale. Null hypothesis was rejected as p

value is <0.05 and significant difference was established between two gender groups.

Table 5.13

Comparison of Affective Commitment Based on Gender

Gender	N	Mean	SD	t value	p value
Male	122	25.90	3.48	-10.497	.000
Female	163	31.34	5.24		

Source: Survey data

Marital Status based comparison:

The affective commitment of single and married employees along with mean differences was examined by using T test. The test statistics (table 5.14) indicated that affective commitment skill of married employees ((M = 29.84, SD = 5.35) in mental healthcare is significantly different from that of unmarried employees (M = 27.42, SD = 4.85); t (283) = -3.849, p = <0.001. Both married and single employees scored moderately in affective commitment scale where married employees showed highest emotional attachment than unmarried ones.

Table 5.14

Comparison of Affective Commitment Based on Marital Status

Marital Status	N	Mean	SD	t value	p value
Single	98	27.42	4.85	-3.849	.000
Married	187	29.84	5.35		

Source: Survey data

Organisational sector based comparison:

T test was adopted to assess the differences in affective commitment of mental healthcare employees based on the organisational sector they work. The test results (table 5.15) couldn't reveal any significant differences in affective commitment of employees from both private (M = 28.57, SD = 4.62 and public sector (M = 30.20, SD = 6.70). Even though employees from public sector were

found to be highly affectively committed than private employees the T test results indicated that the difference between two sectors was insignificant; t (283) = 1.973, p = 0.051.

Table 5.15

Comparison of Affective Commitment based on Organisational Sector

Organisational Sector	N	Mean	SD	t value	p value
Public Sector	77	30.20	6.70	1.973	0.051
Private Sector	208	28.57	4.62		

Source: Survey data

Designation based comparison:

The affective commitment of mental healthcare employees was analysed based on their occupational designations. One way ANOVA was used to investigate the differences in affective commitment of employees with different designations.

Table 5.16

Comparison of Affective Commitment Based on Designation

Designation	N	Mean	SD	F value	p value
Psychiatrist	44	23.40	2.51	66.772	.000
Psychologist	19	26.78	1.84		
Social Worker	26	23.23	3.92		
Nurse	196	31.25	4.50		

Source: Survey data

One way ANOVA results (table 5.16) revealed that the affective commitment level is significantly different for each designation group. Psychiatrists, psychologists, social workers and nurses differed significantly in their respective affective commitment levels, F (3, 281) = 66.772, p = <0.001. Null hypothesis was rejected as p value is less than 0.05 and statistically significant difference was established. For getting a clear picture and understanding one who caused for statistically significant difference the Post Hoc test was adopted.

Table 5.17

Comparison of Affective Commitment Based on Designation, Post Hoc Tests

Occupational Status (I)	Occupational Status (J)	Mean Difference (I-J)	Std. Error	Sig.
Psychiatrist	Psychologist	-3.38038*	1.11931	.015**
	Social worker	.17832	1.00860	.998
	Nurse	-7.84601*	.68020	.000**
Psychologist	Psychiatrist	3.38038*	1.11931	.015**
	Social worker	3.55870*	1.23062	.021**
	Nurse	-4.46563*	.97971	.000**
Social worker	Psychiatrist	-.17832	1.00860	.998
	Psychologist	-3.55870*	1.23062	.021**
	Nurse	-8.02433*	.85103	.000**
Nurse	Psychiatrist	7.84601*	.68020	.000**
	Psychologist	4.46563*	.97971	.000**
	Social worker	8.02433*	.85103	.000**
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post Hoc test results as shown in table 5.17 revealed that the affective commitment level of nurses (M = 31.25, SD = 4.50) and psychologists (M = 26.78, SD = 1.84) are significantly different among mental healthcare employees. Nurses were found to be very highly affectively committed. Psychologists, social workers (M = 23.23, SD = 3.92) and psychiatrists (M = 23.40, SD = 2.51) possessed a medium level of affective commitment where psychologists differed significantly from others.

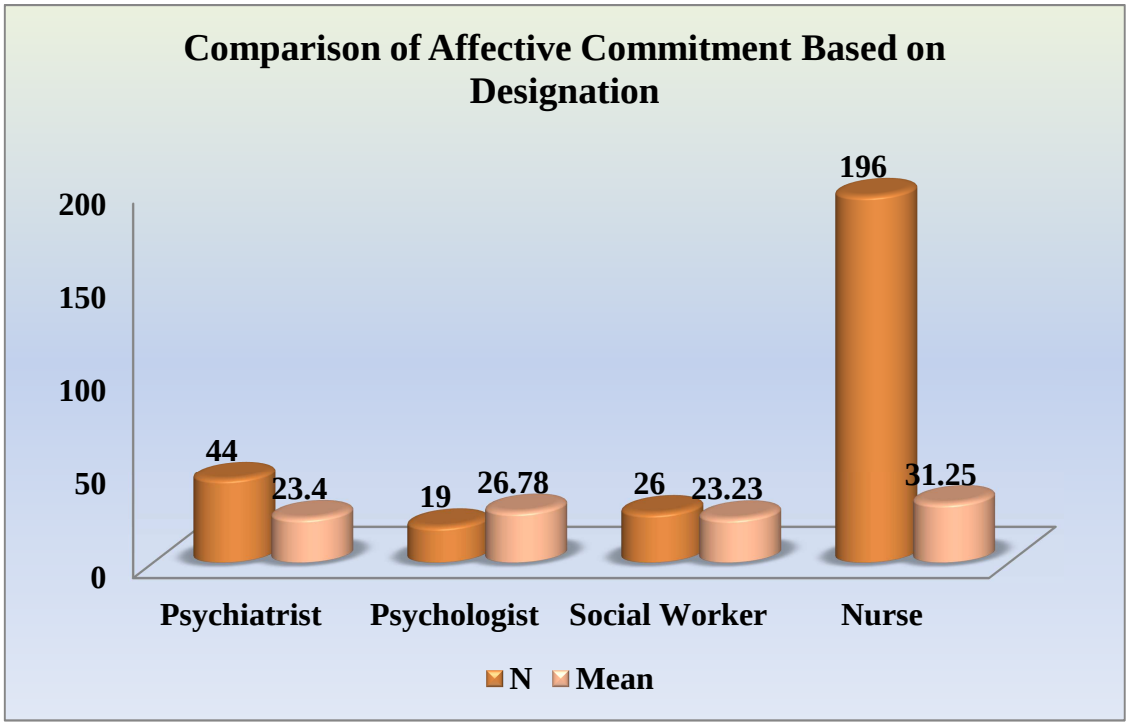


Fig 5.2: Comparison of Affective Commitment Based on Designation

Fig 5.2 shows the graphical representation of the affective commitment comparison based on designations.

Work Experience based comparison:

One way ANOVA was used to examine the differences in affective commitment of mental healthcare employees based on their work experience in their respective organisations. Employees were classified in to three categories as low experienced, moderately experienced and highly experienced.

Table 5.18

Comparison of Affective Commitment Based on Work Experience

Work Experience	N	Mean	SD	F value	p value
Low Experienced	132	28.20	5.16	10.778	.000
Moderately Experienced	105	28.60	5.20		
Highly Experienced	48	32.12	4.88		

Source: Survey data

As per one way ANOVA results (table 5.18) mental healthcare employees were found to be significantly different in affective commitment based on their experience. As the p value is less than 0.05 (F (2, 282) = 10.778, p = <0.001) null hypothesis was rejected and statistically significant difference was established among highly, moderately and low experienced employees. For precise analysis of the difference in means scores Post hoc comparisons were conducted using the Tukey HSD test.

Table 5.19

Comparison of Affective Commitment Based on Work Experience, Post Hoc Tests

Work Experience (I)	Work Experience (J)	Mean Difference (I-J)	Std. Error	Sig.
Low Experienced	Moderately Experienced	-.40498	.67138	.818
	Highly Experienced	-3.92045*	.86538	.000**
Moderately Experienced	Low Experienced	.40498	.67138	.818
	Highly Experienced	-3.51548*	.89456	.000**
Highly Experienced	Low Experienced	3.92045*	.86538	.000**
	Moderately Experienced	3.51548*	.89456	.000**
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post hoc results (table 5.19) revealed that the affective commitment of highly experienced mental healthcare employees (M = 32.12, SD = 4.88) is significantly different from that of moderately (M = 28.60, SD = 5.20) and low experienced (M = 28.20, SD = 5.16) employees. The highly experienced employees scored highly in affective commitment with mean score of 32.12 and standard deviation of 4.88 while low and moderately experienced employees possessed a medium score in affective commitment scale.

5.5 Section C: Continuance Commitment of Mental Healthcare Employees

Continuance commitment is the second dimension of the tri-dimensional model of organisational commitment. Meyer and Allen (1997) theorize it as "awareness of the costs associated with leaving the organisation". "It is calculative in nature because of the individual's perception or weighing of costs and risks associated with leaving the current organisation", (Meyer & Allen, 1997). Meyer and Allen propose that "employees whose primary link to the organisation is based on continuance commitment remain because they need to do so" (Meyer & Allen, 1991). Continuance commitment can be regarded as "an instrumental attachment to the organisation, where the individual's association with the organisation is based on an assessment of economic benefits gained" (Beck & Wilson, 2000). "The strength of continuance commitment, which implies the need to stay, is determined by the perceived costs of leaving the organisation." (Meyer & Allen, 1984). Best (1994) indicates that "continuance organisational commitment will therefore be the strongest when availability of alternatives are few and the number of investments are high".

The continuance commitment level of mental healthcare employees in Kerala was evaluated by means scores obtained in continuance commitment scale. According to the scores obtained mental healthcare employees (n= 285) were found to be at the medium level of continuance commitment. The mean score of continuance commitment dimension of employees was 21.37 with a standard deviation of 4.10 (table 5.20) meaning that they possess a medium level of continuance commitment towards organisation.

Table 5.20

Continuance Commitment of Mental Healthcare Employees

CC of mental healthcare employees					
Dimension	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
CC	285	11.00	29.00	21.37	4.10
Valid N (listwise)	285				

Source: Survey data

5.5.1 Category wise Continuance Commitment of Mental Healthcare Employees

Continuance commitment level of mental healthcare employees in each category was calculated separately as shown in below table 5.21.

Table 5.21

Category wise CC of Mental Healthcare Employees

Category	Status	N	Mean	SD
Gender	Male	122	22.87	3.35
	Female	163	20.24	4.25
Marital status	Single	98	21.87	3.13
	Married	187	21.10	4.51
Occupation	Psychiatrist	44	22.34	3.74
	Psychologist	19	22.52	3.22
	Social Worker	26	22.30	3.12
	Nurse	196	20.45	4.07
Organisation	Public Sector	77	21.36	4.98
	Private Sector	208	21.37	3.73
Work Experience	Low experienced	132	21.60	3.30
	Moderately experienced	105	21.51	4.46
	High experienced	48	20.41	5.09

Source: Survey data

Continuance commitment scores (table 5.21) reveal that employees in all categories possess a medium level of continuance commitment. In gender category male employees (M = 22.87, SD = 3.35) are highly continuance committed than females (M = 20.24, SD = 4.25). Unmarried employees (M = 21.87, SD = 3.13) are little more continuance committed than married employees (M = 21.10, SD = 4.51). Nurses (M = 20.45, SD = 4.07) have lower continuance commitment towards their organisation compared to psychiatrists (M = 22.34, SD = 3.74), psychologists (M = 22.52, SD = 3.22) and social workers (M = 22.30, SD = 3.12). Employees in both public sector (M = 21.36, SD = 4.98) and private sector (M = 21.37, SD = 3.73) organisations scored medium level in continuance commitment. In experience category highly experienced employees (M = 20.41, SD = 5.09) possessed a low margin of continuance commitment compared to moderately (M = 21.51, SD = 4.46) and low experienced employees (M = 21.60, SD = 3.30). Among all categories male employees scored very high and female employees scored very low in continuance commitment subscale.

5.5.2 Comparisons of Continuance Commitment Based on Demographics:

The mean scores of continuance commitment (CC) of mental healthcare employees were compared based on their demographic factors explored in the study. These demographic factors include gender, marital status, occupational status, organisation and work experience. Statistical tests like T test, ANOVA and Post Hoc tests were used to test the hypotheses.

Gender based comparison:

The differences in continuance commitment of male and female employees were explored. Male employees (n = 122, M = 22.87, SD = 3.35) scored more in continuance commitment scale than their Female counterparts (n = 163, M = 20.24, SD = 4.25). Both male and female employees possessed a medium level of continuance commitment. T test was used to assess the significance of difference in continuance commitment of males and females. Test results (table 5.22) indicated that the difference in continuance commitment skill of mental healthcare employees

based on gender was statistically significant and null hypothesis was rejected as the p value is <0.05; t (283) = 5.833, p = <0.001.

Table 5.22

Comparison of Continuance Commitment Based on Gender

Gender	N	Mean	SD	t value	p value
Male	122	22.87	3.35	5.833	.000
Female	163	20.24	4.25		

Source: Survey data

Marital Status based comparison:

The differences in continuance commitment of single and married employees were examined. Unmarried employees were found to score little more in continuance commitment skill than married employees. Both married (M = 21.10, SD = 4.51) and unmarried employees (M = 21.87, SD = 3.13) scored a medium level of continuance commitment. T test was adopted to evaluate the significance of difference in continuance commitment of single and married employees. The test statistics (table 5.23) indicated that difference in continuance commitment of mental healthcare employees based on gender was not statistically significant; t (283) = 1.684, p = 0.093.

Table 5.23

Comparison of Continuance Commitment Based on Marital Status

Marital Status	N	Mean	SD	t value	p value
Single	98	21.87	3.13	1.684	0.093
Married	187	21.10	4.51		

Source: Survey data

Organisational sector based comparison:

T test was adopted to assess the significance of differences in continuance commitment of mental healthcare employees based on the organisational sector they work. Mental healthcare employees from public sector (M = 21.36, SD = 4.98) and

private sector (M = 21.37, SD = 3.73) institutions possessed a medium level of continuance commitment with an approximately equal score. The T test results (table 5.24) revealed that the difference in continuance commitment of both public and private sector employees was not statistically significant. Null hypothesis was not rejected as the p value is greater than 0.05; t (283) = -0.018, p = 0.986.

Table 5.24

Comparison of Continuance Commitment Based on Organisational Sector

Organisational Sector	N	Mean	SD	t value	p value
Public Sector	77	21.36	4.98	-0.018	0.986
Private Sector	208	21.37	3.73		

Source: Survey data

Designation based comparison:

The Continuance commitment of mental healthcare employees was analysed based on their occupational designations. One way ANOVA was used to investigate the significance of differences in continuance commitment psychiatrists, psychologists, social workers and nurses.

Table 5.25

Comparison of Continuance Commitment Based on Designation

Designation	N	Mean	SD	F value	p value
Psychiatrist	44	22.34	3.74	4.936	0.002
Psychologist	19	22.52	3.22		
Social Worker	26	22.30	3.12		
Nurse	196	20.45	4.07		

Source: Survey data

The mean scores of continuance commitment dimension revealed that nurses (M = 20.45, SD = 4.07) possessed a lesser score in continuance commitment subscale compared to psychiatrists (M = 22.34, SD = 3.74), social workers (M = 22.30, SD = 3.12) and psychologists (M = 22.52, SD = 0.3.22). Employees in all

four designations hold a medium level of continuance commitment. One way ANOVA was used to investigate the significance of differences in continuance commitment of employees with different designations. One way ANOVA results (table 5.25) showed that difference in continuance commitment of mental healthcare employees with different occupational designations was statistically significant. Null hypothesis was rejected to establish a significant difference among employees with different designations; F (3, 281) = 4.936, p = 0.002.

Further Post Hoc test was conducted for getting a clear picture of the statistically significant differences in continuance commitment.

Table 5.26

Comparison of Continuance Commitment Based on Designation, Post Hoc Tests

Occupational Status (I)	Occupational Status (J)	Mean Difference (I-J)	Std. Error	Sig.
Psychiatrist	Psychologist	-.18541	1.07120	.998
	Social worker	.03322	.96525	1.000
	Nurse	1.88683*	.65096	.021**
Psychologist	Psychiatrist	.18541	1.07120	.998
	Social worker	.21862	1.17774	.998
	Nurse	2.07223	.93760	.123
Social worker	Psychiatrist	-.03322	.96525	1.000
	Psychologist	-.21862	1.17774	.998
	Nurse	1.85361	.81445	.106
Nurse	Psychiatrist	-1.88683*	.65096	.021**
	Psychologist	-2.07223	.93760	.123
	Social worker	-1.85361	.81445	.106

*The mean difference is significant at the 0.05 level
** reject (Ho)

Source: Survey data

The Tukey Post Hoc test results as shown in table 5.26 revealed that the continuance commitment level of nurses (M = 4.95, SD = 0.63) is significantly different from that of psychiatrists. Nurses were found to be low continuance committed compared to psychologists, social workers and psychiatrists. Employees in four designations possessed a medium level of continuance commitment. No statistically significant difference was established in the continuance commitment among psychiatrists, psychologists and social workers.

Work Experience based comparison:

The difference in continuance commitment of mental healthcare employees was examined based on their experience. One way ANOVA was conducted to examine the significance of mean differences in continuance commitment of mental healthcare employees based on their work experience in their respective organisations. Employees were classified in to three categories as low experienced, moderately experienced and highly experienced.

Table 5.27

Comparison of Continuance Commitment Based on Work Experience

Work Experience	N	Mean	SD	F value	p value
Low Experienced	132	21.60	3.30	1.585	0.207
Moderately Experienced	105	21.51	4.46		
Highly Experienced	48	20.41	5.09		

Source: Survey data

As per one way ANOVA results (table 5.27) mental healthcare employees were not significantly different in continuance commitment based on their experience. The difference in mean score was found to be insignificant as the p value was greater than 0.05 (F (2, 282) = 1.585, p = 0.207). Highly experienced employees M = 20.41, SD = 5.09) scored a lower score compared to low (M = 21.60, SD = 3.30) and moderately experienced (M = 21.51, SD = 4.46) mental healthcare employees. Employees in all experience categories possessed a medium level of continuance commitment.

5.6 Section D: Normative Commitment of Mental Healthcare Employees

Normative Commitment (NC) is the third dimension of the tri-dimensional model of organisational commitment. It refers to a feeling of obligation from the part of employee to continue work or employment in a specific organisation. Internalized normative beliefs of duty and obligation make individuals obliged to sustain membership in the organisation (Allen & Meyer, 1990). Meyer and Allen (1991) view the "employees with normative commitment feel that they ought to remain with the organisation". Wiener and Vardi (1980) describe normative commitment as "the work behaviour of individuals, guided by a sense of duty, obligation and loyalty towards the organisation". Generally organisational members and employees are believed to be committed to an organisation based on their moral norms and reasons.

The normative commitment level of mental healthcare employees in Kerala was assessed by calculating the scores obtained in normative commitment scale. The analysis of data clearly indicated that mental healthcare employees (n= 285) are in medium level of normative commitment dimension. The mean score of normative commitment dimension of employees was found to be 28.10 with a standard deviation of 4.33 (table 5.28) which come in the range of medium level and means that mental healthcare employees have a moderate feeling of obligation towards their organisations.

Table 5.28

Normative Commitment of Mental Healthcare Employees

NC of mental healthcare employees					
Dimension	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
NC	285	14.00	36.00	28.10	4.33
Valid N (listwise)	285				

Source: Survey data

5.6.1 Category wise Normative Commitment of Mental Healthcare Employees

Normative commitment level of mental healthcare employees in each category was calculated separately as shown in table 5.29.

Table 5.29

Category Wise Normative Commitment of Mental Healthcare Employees

Category	Status	N	Mean	SD
Gender	Male	122	27.87	5.24
	Female	163	28.27	3.51
Marital status	Single	98	27.74	4.82
	Married	187	28.29	4.05
Occupation	Psychiatrist	44	22.95	5.81
	Psychologist	19	29.00	4.06
	Social Worker	26	28.26	3.58
	Nurse	196	29.15	3.09
Organisation	Public Sector	77	29.75	3.73
	Private Sector	208	27.49	4.39
Work Experience	Low Experienced	132	27.90	4.52
	Moderately Experienced	105	28.36	4.10
	High Experienced	48	28.10	4.36

Source: Survey data

Normative commitment scores (table 5.29) reveal that employees in all categories possess a medium level of normative commitment. In gender category female employees (M = 28.27, SD = 3.51) were found to be highly normatively committed than males (M = 27.87, SD = 5.24). Married employees (M = 28.29, SD = 4.05) are highly normatively committed than unmarried employees (M = 27.74, SD = 4.82). Nurses (M = 29.15, SD = 3.09) have higher normative commitment towards their organisation compared to psychiatrists (M = 22.95, SD = 5.81), psychologists (M = 29.00, SD = 4.06) and social workers (M = 28.26, SD = 3.58). Employees in public sector (M = 29.75, SD = 3.73) scored higher than private sector

employees (M = 27.49, SD = 4.39). In experience category moderately experienced employees (M = 28.36, SD = 4.10) possessed a high margin of normative commitment compared to high (M = 28.10, SD = 4.36) and low experienced employees (M = 27.90, SD = 4.52). Among all categories public sector employees scored very high and psychiatrists scored very low.

5.6.2 Comparisons of Normative Commitment Based on Demographics:

The mean scores of normative commitment (NC) of mental healthcare employees were compared based on their demographic factors explored in the study. These demographic factors include gender, marital status, occupational status, organisation and work experience. Statistical tests like T test, ANOVA and Post Hoc tests were used to test the hypotheses.

Gender based comparison:

The differences in normative commitment skill of male and female employees were explored. Female employees (n = 163) scored a high level (M = 28.27, SD = 3.51) of normative commitment dimension than their male counterparts (n = 122, M = 27.87, SD = 5.24). The normative commitment of both male and female employees was found to be at medium level. T test was used to assess the significance of difference in normative commitment of males and females. Test results (table 5.30) indicated that the difference in mean score of normative commitment based on gender was not statistically significant as the p value is >0.5. The difference based on gender was mere of chance, t (283) = -0.727, p = 0.468.

Table 5.30

Comparison of Normative Commitment Based on Gender

Gender	N	Mean	SD	t value	p value
Male	122	27.87	5.24	-0.727	0.468
Female	163	28.27	3.51		

Source: Survey data

Marital Status based comparison:

The differences in normative commitment of single and married employees were examined. Married employees were found to score high in normative commitment than unmarried employees. Married employees scored a means score of (M = 28.29, SD = 4.05) while unmarried employees scored a medium level with a mean score of (M = 27.74, SD = 4.82). Further T test was adopted to evaluate the significance of difference in normative commitment of single and married employees. The test statistics (table 5.31) indicated that normative commitment of mental healthcare employees is not significantly different. The difference between male and female employees in normative commitment was not statistically significant; t (283) = -1.016, p = 0.311.

Table 5.31

Comparison of Normative Commitment Based on Marital Status

Marital Status	N	Mean	SD	t value	p value
Single	98	27.74	4.82	-1.016	0.311
Married	187	28.29	4.05		

Source: Survey data

Organisational sector based comparison:

T test was adopted to assess the significance of differences in normative commitment of mental healthcare employees based on the organisational sector they work. Employees from public sector (M = 29.75, SD = 3.73) possessed a higher level of normative commitment compared to the employees from private sector (M = 27.49, SD = 4.39). Scores obtained for employees in both sectors was at moderate level. T test results (table 5.32) revealed that the difference in normative commitment of employees from private and public sector was statistically significant. As the p value is less than 0.05 null hypothesis was rejected at 0.05 significance level and significant difference was established; t (283) = 4.005, p = <0.001.

Table 5.32

Comparison of Normative Commitment Based on Organisational Sector

Organisational Sector	N	Mean	SD	t value	p value
Public Sector	77	29.75	3.73	4.005	.000
Private Sector	208	27.49	4.39		

Source: Survey data

Designation based comparison:

The normative commitment of mental healthcare employees was analysed based on their occupational designations. One way ANOVA was used to investigate the significance of differences in normative commitment of employees with different designations. One way ANOVA results (table 5.33) indicated that normative commitment of psychiatrists, psychologists, social workers and nurses differed significantly. Null hypothesis was rejected as the p value was less than 0.05 at 0.05 significance level; $F(3, 281) = 33.224$, $p = <0.001$.

Table 5.33

Comparison of Normative Commitment Based on Designation

Designation	N	Mean	SD	F value	p value
Psychiatrist	44	22.95	5.81	33.224	.000
Psychologist	19	29.00	4.06		
Social Worker	26	28.26	3.58		
Nurse	196	29.15	3.09		

Source: Survey data

For getting a clear picture of difference and understanding who caused for difference a Post hoc comparison was conducted using the Tukey HSD test.

Table 5.34

Comparison of Normative Commitment Based on Designation, Post Hoc Tests

Occupational Status (I)	Occupational Status (J)	Mean Difference (I-J)	Std. Error	Sig.
psychiatrist	Psychologist	-1.00758*	.17137	.000**
	social worker	-.88578*	.15442	.000**
	Nurse	-1.03309*	.10414	.000**
psychologist	Psychiatrist	1.00758*	.17137	.000**
	social worker	.12179	.18842	.917
	Nurse	-.02551	.15000	.998
social worker	Psychiatrist	.88578*	.15442	.000**
	Psychologist	-.12179	.18842	.917
	Nurse	-.14731	.13030	.671
Nurse	Psychiatrist	1.03309*	.10414	.000**
	Psychologist	.02551	.15000	.998
	social worker	.14731	.13030	.671

*The mean difference is significant at the 0.05 level
** reject (Ho)

Source: Survey data

The Tukey Post hoc results (table 5.34) revealed that normative commitment of psychiatrists ((M = 22.95, SD = 5.81) is significantly differed from that of all other employee categories. As the p value is less than 0.05 the difference was found to be statistically significant. Psychiatrists scored vey lowest in normative commitment compared to other groups. Nurses (M = 29.15, SD = 3.09), psychologist (M = 29.00, SD = 4.06) and social workers (M = 28.26, SD = 3.58) possessed a high level of normative commitment. Among all employee designations nurses scored highest in normative commitment. Post Hoc test results couldn't reveal significant difference in normative commitment of nurses, psychologists and social workers.

Work Experience based comparison:

The difference in normative commitment of mental healthcare employees was examined based on their work experience. One way ANOVA was conducted to examine the significance of mean differences in normative commitment of mental healthcare employees based on their work experience in their respective organisations. Employees were classified in to three categories as low experienced, moderately experienced and highly experienced.

Table 5.35

Comparison of Normative Commitment Based on Work Experience

Work Experience	N	Mean	SD	F value	p value
Low Experienced	132	27.90	4.52	0.328	0.721
Moderately Experienced	105	28.36	4.10		
Highly Experienced	48	28.10	4.36		

Source: Survey data

Moderately experienced employees (M = 28.36, SD = 4.10) scored a high level of normative commitment while high (M = 28.10, SD = 4.36) and low experienced (M = 27.90, SD = 4.52) employees scored a medium level of normative commitment. As per one way ANOVA results (table 5.35) no statistically significant differences was found in the normative commitment of mental healthcare employees with different experience. The difference in mean scores was considered to be mere of chance as the p value was greater than 0.05. The differences in the normative commitment scores of highly experienced, moderately experienced and low experience was not significant; F (2, 282) = 0.328, p = 0.721.

5.7 Section E: Organisational Commitment of Mental Healthcare Employees

This section analyses the overall organisational commitment level of mental healthcare employees in Kerala. The scores of three dimensions of organisational commitment namely, affective commitment, continuance commitment and

normative commitment were calculated and summed up to find out the total organisational commitment of the mental health employees. Organisational commitment refers to the psychological attachment of an individual or employee towards his organisation. It is the relationship or psychological belongingness of an employee to his working organisation where he wants to continue working. The organisationally committed employees will be willing to stay with organisation for a long time and exert extra effort for the sake of the success of the organisation.

The organisational commitment level of mental healthcare employees in Kerala was assessed by calculating the scores obtained in three subscales of Organisational commitment scale. The analysis of data clearly indicated that mental healthcare employees in Kerala (n= 285) are in medium level of organisational commitment. The mean score for organisational commitment of employees was found to be 85.24 with a standard deviation of 11.15 (table 5.36). The mean score revealed that mental healthcare employees in Kerala are a highly committed to their organisation.

Table 5.36

Organisational Commitment of Mental Healthcare Employees

OC of mental healthcare employees					
Dimension	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
OC	285	58.00	108.00	85.24	11.15
Valid N (listwise)	285				

Source: Survey data

5.7.1 Category wise Organisational Commitment of Mental Healthcare Employees

The overall organisational commitment score of mental healthcare employees was calculated for each category separately based on the mean scores obtained on three subscales.

Table 5.37

Category Wise Organisational Commitment of Mental Healthcare Employees

Category	Status	N	Mean	SD
Gender	Male	122	79.29	9.97
	Female	163	89.69	9.87
Marital status	Single	98	82.80	10.32
	Married	187	86.51	11.39
Occupation	Psychiatrist	44	70.47	9.55
	Psychologist	19	80.73	7.78
	Social Worker	26	76.80	6.98
	Nurse	196	90.11	8.05
Organisation	Public Sector	77	91.61	9.75
	Private Sector	208	82.88	10.73
Work Experience	Low experienced	132	83.72	10.56
	Moderately experienced	105	84.35	11.85
	High experienced	48	91.35	9.18

Source: Survey data

The scores given in the table 5.37 revealed that employees in the categories of nurse, public sector and high experienced scored a high level of organisational commitment and all other categories possessed a medium level.

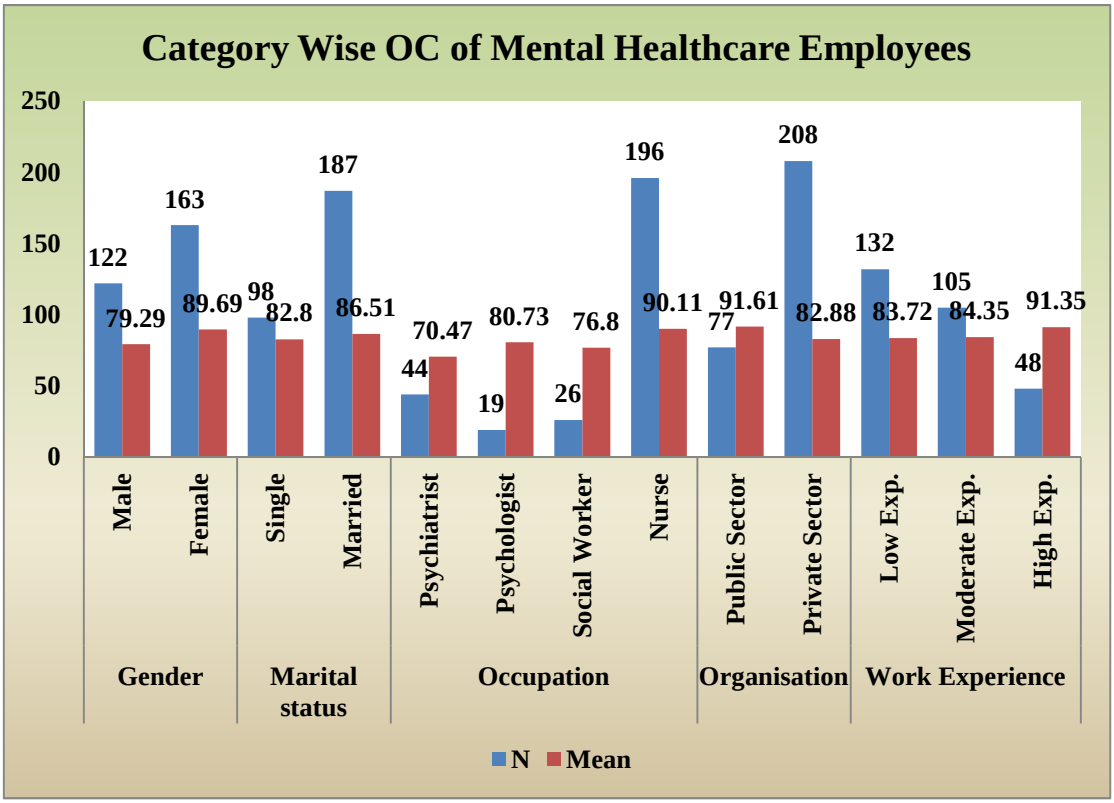


Fig 5.3: Category Wise OC of Mental Healthcare Employees

In gender category both male (M = 79.29, SD = 9.97) and female employees (M = 89.69, SD = 9.87) scored a medium level of organisational commitment where female scored higher than male counterparts. Married employees (M = 86.51, SD = 11.39) scored higher than unmarried employees (M = 82.80, SD = 10.32). In occupation category nurses (M = 90.11, SD = 8.05) possessed a higher level score in organisational commitment while psychologists (M = 80.73, SD = 7.78), psychiatrists (M = 70.47, SD = 9.55) and social workers (M = 76.80, SD = 6.98) scored a medium level score. In the category of organisation public sector employees (M = 91.61, SD = 9.75) were found to be highly committed to the organisation than private sector employees (M = 82.88, SD = 10.73). In experience category high experienced employees (M = 91.35, SD = 9.18) were highly committed to the organisation than low (M = 83.72, SD = 10.56) and moderately experienced employees (M = 84.35, SD = 11.85). Among all categories public sector

employees scored highest and psychiatrists scored the lowest in organisational commitment scale (Fig. 5.3).

5.7.2 Comparisons of Organisational Commitment Based on Demographics:

The organisational commitment (OC) of mental healthcare employees was compared based on their demographic factors explored in the study. These demographic factors include gender, marital status, occupational status, organisation and work experience. Statistical tests like T test, ANOVA and Post Hoc tests were used to test the hypotheses.

Gender based comparison:

The differences in organisational commitment of male and female employees were explored. Female employees (n = 163) scored very high (M = 89.69, SD = 9.87) in organisational commitment than their male counterparts (n = 122, M = 79.29, SD = 9.97). T test was used to assess the significance of difference in organisational commitment of males and females. Test results (table 5.38) indicated that the difference in mean score of organisational commitment based on gender was statistically significant and null hypothesis was rejected as the p value is <0.5. Test results concluded that the differences in organisational commitment of mental healthcare employees based on gender is very significant statistically; t (283) = -8.760, p = <0.001. The result is consistent with the findings of Forkuoh, S.K. et al (2014) who conducted the study to find out commitment levels of members of family business and concluded that female employees are highly committed compared to their male counterparts. Earlier it was suggested that gender can affect employees' attitude towards the organisation (Mathieu, J.E. and Zajac, D.M., 1990).

Table 5.38

Comparison of Organisational Commitment Based on Gender

Gender	N	Mean	SD	t value	p value
Male	122	79.29	9.97	-8.760	.000
Female	163	89.69	9.87		

Source: Survey data

Marital Status based comparison:

The differences in organisational commitment of both single and married employees were examined. Married employees were found to be highly organisationally committed than unmarried employees. Both married (M = 86.51, SD = 11.39) and unmarried employees (M = 82.80, SD = 10.32) scored a moderate level of organisational commitment. Further T test was adopted to evaluate the significance of difference in organisational commitment of single and married employees. The test statistics (table 5.39) indicated that organisational commitment of married employees in mental healthcare is significantly different from that of unmarried employees; t (283) = -2.697, p = 0.007. The results are reaffirming the findings of many previous studies which consider marital status as a reliable predictor of organisational commitment. Dodd-McCue, D. and Wright, G.B. (1996) have clearly indicated that employees who are married show much more commitment to their organisations compared to single employees. In a study on demographic and psychological factors predicting organisational commitment Salami, S.O. (2008) has found that marital status of employees can significantly predict organisational commitment.

Table 5.39

Comparison of Organisational Commitment Based on Marital Status

Marital Status	N	Mean	SD	t value	p value
Single	98	82.80	10.32	-2.697	0.007
Married	187	86.51	11.39		

Source: Survey data

Organisational sector based comparison:

The organisational commitment of public sector and private sector employees was evaluated to find out whether there existed any difference based on organisational sector. T test was adopted to assess the significance of differences in organisational commitment skill of mental healthcare employees based on their organisational sector. The test results (table 5.40) revealed that organisational

commitment of public sector employees (M = 91.61, SD = 9.75) is significantly different from organisational commitment of private sector employees (M = 82.88, SD = 10.73). Employees from public institutions were found to be highly committed to their organisation while private employees a medium level of organisational commitment. Null hypothesis was rejected as the p value was less than 0.05 and significant difference was established; t (283) = 6.241, p = <0.001.

Table 5.40

Comparison of Organisational Commitment Based on Organisational Sector

Organisational Sector	N	Mean	SD	t value	p value
Public Sector	77	91.61	9.75	6.241	.000
Private Sector	208	82.88	10.73		

Source: Survey data

Designation based comparison:

The organisational commitment of mental healthcare employees was analysed based on their occupational designations. The mean scores for organisational commitment scale revealed that mental health nurses are highly committed to their organisations. Psychiatrists, psychologists and social workers possessed a medium level of organisational commitment where psychologists scored highest and psychiatrists scored the lowest. One way ANOVA was used to investigate the significance of differences in organisational commitment of employees with different designations. Null hypothesis was rejected as the p value was less than 0.05. One way ANOVA results (table 5.41) showed that difference in organisational commitment skill of mental healthcare employees based on occupational designations was statistically significant at 0.05 level of significance; F (3, 281) = 81.687, p = <0.001.

Table 5.41

Comparison of Organisational Commitment Based on Designation

Designation	N	Mean	SD	F value	p value
Psychiatrist	44	70.47	9.55	81.687	.000
Psychologist	19	80.73	7.78		
Social Worker	26	76.80	6.98		
Nurse	196	90.11	8.05		

Source: Survey data

For getting a clear picture of difference and understanding who caused for difference a Post hoc comparison was conducted using the Tukey HSD test.

Table 5.42

Comparison of Organisational Commitment Based on Designation, Post Hoc Tests

Occupational Status (I)	Occupational Status (J)	Mean Difference (I-J)	Std. Error	Sig.
Psychiatrist	Psychologist	-10.25957*	2.25090	.000**
	Social worker	-6.33042*	2.02826	.011**
	Nurse	-19.63497*	1.36785	.000**
Psychologist	Psychiatrist	10.25957*	2.25090	.000**
	Social worker	3.92915	2.47475	.387
	Nurse	-9.37540*	1.97017	.000**
Social worker	Psychiatrist	6.33042*	2.02826	.011**
	Psychologist	-3.92915	2.47475	.387
	Nurse	-13.30455*	1.71139	.000**
Nurse	Psychiatrist	19.63497*	1.36785	.000**
	Psychologist	9.37540*	1.97017	.000**
	Social worker	13.30455*	1.71139	.000**

*The mean difference is significant at the 0.05 level
** reject (Ho)

Source: Survey data

The Tukey Post hoc results as shown in table 5.42 indicated that organisational commitment of psychiatrists (M = 70.47, SD = 9.55, p = <0.05) and nurses (M = 90.11, SD = 8.05, p = <0.05) is significantly different from that of other employee categories. As the p value is less than 0.05 the difference was found to be significant and null hypothesis was rejected. Nurses were found highest in organisational commitment level and psychiatrists were found to be lowest. Post hoc test couldn't reveal any significant difference in organisational commitment skill of social workers and psychologists. Psychologists (M = 80.73, SD = 7.78) and social workers (M = 76.80, SD = 6.98) scored a medium level of organisational commitment. The present results however were found to be contrary to the findings of Khalili A, Asmavi A. (2012) who suggested that there no statistically significant relationship between nurses' employment status and their organisational commitment.

Work Experience based comparison:

The difference in organisational commitment of mental healthcare employees was examined based on their work experience. One way ANOVA was conducted to examine the significance of mean differences in organisational commitment of mental healthcare employees based on their work experience in their respective organisations. Employees were classified in to three categories as low experienced, moderately experienced and highly experienced.

Table 5.43

Comparison of Organisational Commitment Based on Work Experience

Work Experience	N	Mean	SD	F value	p value
Low Experienced	132	83.72	10.56	9.258	.000
Moderately Experienced	105	84.35	11.85		
Highly Experienced	48	91.35	9.18		

Source: Survey data

As per one way ANOVA results (table 5.43) mental healthcare employees were found to be significantly different in organisational commitment skill based on their experience. The difference in mean score was found to be significant as the p value was less than 0.05 (F (2, 282) = 9.258, p = <0.001). Null hypothesis was rejected to establish a statistically significant difference among highly, moderately and low experienced mental healthcare employees. For precise analysis of the differences and understanding clearly the cause for difference in means scores Post hoc comparisons were conducted using the Tukey HSD test.

Table 5.44

Comparison of Organisational Commitment Based on Work Experience, Post Hoc Tests

Work Experience (I)	Work Experience (J)	Mean Difference (I-J)	Std. Error	Sig.
Low Experienced	Moderately Experienced	-.62511	1.41862	.899
	Highly Experienced	-7.62689*	1.82853	.000**
Moderately Experienced	Low Experienced	.62511	1.41862	.899
	Highly Experienced	-7.00179*	1.89018	.001**
Highly Experienced	Low Experienced	7.62689*	1.82853	.000**
	Moderately Experienced	7.00179*	1.89018	.001**
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post hoc results (5.44) revealed that the organisational commitment levels of highly experienced mental healthcare employees is significantly different from that of moderately and low experienced employees. Null hypothesis was rejected and statistically significant difference was established as the p value was less than 0.05. Highly experienced employees (M = 91.35, SD = 9.18) were found to be highly committed to the organisational they work in. Moderately experienced (M = 84.35, SD = 11.85) and low experienced (M = 83.72, SD = 10.56)

showed a medium level of organisational commitment where low experienced employees scored the lowest score. Earlier many studies have concluded that job tenure is a significant predictor of organisational commitment (Salami, S.O. 2008, Azeem, S.M. 2010, Igbal, A. 2011). The results are in line with the findings of Amangala, T.A. (2013) who concluded that years worked or tenure has an overwhelming influence on commitment.

5.8 Summarised Results of Hypotheses Tested

The summary of hypotheses formulated and tested, its p values and results are given in the table 5.45

Table 5.45

Summarised Results of Hypotheses

S. No.	Hypotheses	Test	P Value	Results
1	There is no significant difference in affective commitment of mental health employees based on gender	Independent Samples T Test	<0.001	H_0 Rejected
2	There is no significant difference in affective commitment of mental health employees based on marital status	Independent Samples T Test	<0.001	H_0 Rejected
3	There is no significant difference in affective commitment of mental health employees based on organisational sector	Independent Samples T Test	0.051	H_0 Not Rejected
4	There is no significant difference in affective commitment of mental health employees based on designation	One Way ANOVA	<0.001	H_0 Rejected
5	There is no significant difference in affective commitment of mental health employees based on experience	One Way ANOVA	<0.001	H_0 Rejected
6	There is no significant difference in continuance commitment of mental health employees based on gender	Independent Samples T Test	<0.001	H_0 Rejected

S. No.	Hypotheses	Test	P Value	Results
7	There is no significant difference in continuance commitment of mental health employees based on marital status	Independent Samples T Test	0.176	H_0 Not Rejected
8	There is no significant difference in continuance commitment of mental health employees based on organisational sector	Independent Samples T Test	<0.001	H_0 Rejected
9	There is no significant difference in continuance commitment of mental health employees based on designation	One Way ANOVA	<0.001	H_0 Rejected
10	There is no significant difference in continuance commitment of mental health employees based on experience	One Way ANOVA	<0.001	H_0 Rejected
11	There is no significant difference in normative commitment of mental health employees based on gender	Independent Samples T Test	0.468	H_0 Not Rejected
12	There is no significant difference in normative commitment of mental health employees based on marital status	Independent Samples T Test	0.311	H_0 Not Rejected
13	There is no significant difference in normative commitment of mental health employees based on organisational sector	Independent Samples T Test	<0.001	H_0 Rejected
14	There is no significant difference in normative commitment of mental health employees based on designation	One Way ANOVA	<0.001	H_0 Rejected
15	There is no significant difference in normative commitment of mental health employees based on experience	One Way ANOVA	0.721	H_0 Rejected
16	There is no significant difference in organisational commitment of mental health employees based on gender	Independent Samples T Test	<0.001	H_0 Rejected

S. No.	Hypotheses	Test	P Value	Results
17	There is no significant difference in organisational commitment of mental health employees based on marital status	Independent Samples T Test	0.007	H_0 Rejected
18	There is no significant difference in organisational commitment of mental health employees based on organisational sector	Independent Samples T Test	<0.001	H_0 Rejected
19	There is no significant difference in organisational commitment of mental health employees based on designation	One Way ANOVA	<0.001	H_0 Rejected
20	There is no significant difference in organisational commitment of mental health employees based on experience	One Way ANOVA	<0.001	H_0 Rejected

Source: Survey data

References

Amangala, T.A. (2013) The Effects of Demographic Characteristics on Orgnaisational Commitment: A Study of Salespersons in the Soft Drink Industry in Nigeria. *European Journal of Business and Management*, 5, 109-118.

Azeem, S.M. (2010) Personality Hardiness, Job Involvement and Job Burnout among Teachers. *International Journal of Vocational and Technical Education*, 2, 36-40.

Baumgartner, H. & Homburg, C. (1996), Applications of structural modeling in marketing and consumer research: A review, *International Journal of Research in Marketing*, 13, 139 - 161. Beck, K. & Wilson, C. (2000). Development of affective organisational commitment. A cross-sequential examination of change with tenure. *Journal of Vocational Behaviour*, 56, 114 – 136

Best, P. W. (1994). Locus of control, personal commitment and commitment to the organisation. *Unpublished M. Com thesis.* University of South Africa, Pretoria.

Chou, C. P., & Bentler, P. M. (1995). Estimates and tests in structural equation modeling. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications*, 37-55, Thousand Oaks: Sage Publications.

Daus, C. S., & Ashkanasy, N. M. (2005). The case for the ability - based model of emotional intelligence in organisational behaviour. *Journal of Organisational Behavior*, 26, 453 - 466.

Dodd-McCue, D. and Wright, G.B. (1996) Men, Women & Attitudinal Commitment: The Effects of Workplace Experiences and Socialization. *Human Relations*, 49, 1065-1089.

Forkuoh, S. K., Affum-Osei, E., Osei, M. A. and Addo Yaw, V. J. (2014). Employees' Commitment and Growth of Family Businesses. *International Journal of Economics, Commerce and Management*, 2, 1 - 14.

Fornell, C. and Larcker, D. F. (1981) Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18, 39 - 50.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). Multivariate data analysis. *Upper Saddle River*, NJ: Prentice Hall.

Hulland, J. Chow, YH. & Lam, S. (1996) Use of casual models in marketing research: A review, *International Journal of Research in Marketing*, 13, 181 - 197.

Igbal, A. (2011) The Impact Assessment of Demographic Factors on Faculty Commitment in the Kingdom of Saudi Arabia Universities. *Journal of College Teaching & Learning*, 8, 1-13

Kaiser, H.F. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36.

Kassim, NM. (2001) *Determinants of customer satisfaction and retention in the cellular phone market of Malaysia*, PhD thesis, Southern Cross University, Lisbon.

Ketkar, S., Kock, N., Parente, R., & Verville, J. (2012). The impact of individualism on buyer - supplier relationship norms, trust and market performance: An analysis of data from Brazil and the U.S.A. *International Business Review*, 21(5), 782 - 793.

Khalili A, Asmavi A. (2012). Appraising the impact of gender differences on organisational commitment: Empirical evidence from a private SME in Iran. *International Journal of Business and Management*. 7(5), 100 – 10.

Mathieu, J.E. and Zajac, D.M. (1990) A Review and Meta-Analysis of the Antecedent, Correlates, and Consequences of Oganisational Commitment. *Psychological Bulletin*, 108, 171-194.

Meyer, J. P. & Allen, N. J. (1984). Testing the side-bet theory of organisational commitment: Some methodological considerations, *Journal of Applied Psychology*, 69, 372 - 378.

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organisational commitment. *Human Resource Management Review*, 1**,** 61 - 89

Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application.* Thousand Oaks, CA: Sage.

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organisations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology, 78*(4), 538 - 551.

Morrow, P. C. (1993). The Theory and Measurement of Work Commitment, *JAI Press Inc*., Greenwich, CT.

Mowday, R.T., Porter, l.W. and Steers, R.M. (1982), Employee Organisational Linkages *Academy Press*, New York

Porter, L. W., Steers, R. M., Mowday, R. T. & Boulian, P. V. (1974). Organisational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology, 59*(5), 603-609.

Salami, S.O. (2008) Demographic & Psychological Factors Predicting Organisational Commitment among Industrial Workers. *Anthropologist*, 10, 31-38

Sheldon, M.E. (1971), Investment and Involvement as Mechanism Producing Organisational commitment, *Administrative Science Quarterly*, 16, 143-150.

Tabachnick, B.G. and Fidell, L.S. (2001) *Using Multivariate Statistics*. 4th Edition, Allyn and Bacon, Boston.

Wiener, Y., & Vardi, Y. (1980). Relationships between job, organisation, and career commitments and work outcomes-an integrative approach. *Organisational Behavior and Human Performance*, 26, 81-96.

CHAPTER 6

WORK ENGAGEMENT OF MENTAL HEALTHCARE EMPLOYEES

Contents **Page No.**

6.1 Introduction

Work engagement is the opposite pole of burnout. It is a psychological state that refers to a state of mind that is characterised by vigor, dedication and absorption. Work engagement is postulated as “a positive, fulfilling, work-related state of mind that is characterised by vigor, dedication, and absorption” (Schaufeli et al., 2002). Recently research studies and organisations have focused highly on the emerging work engagement aspects and practices to enhance and utilise the available human resource skills at an optimum level. There is a significant body of research that positively correlates work engagement with organisational outcomes. Work engagement is believed to support healthcare workforce stability and increase the quality of care as the engaged teams can report better quality of patient care in psychiatric hospitals. Generally the engaged employees or workforce tend to be more satisfied with their jobs and are more willing to stay in their positions. They have a lot of energy, enthusiasm about jobs and absorption by the work.

The third objective of the study i.e. assessing the work engagement level of mental healthcare employees in Kerala is analysed and interpreted in this chapter. The chapter examines and assesses the work engagement level of mental healthcare employees in Kerala based on the Survey data to answer the prominent research questions:

- What is the work engagement level of mental healthcare employees in Kerala?
- What effect demographic variables have on work engagement?

Utrecht Work Engagement Scale (UWES) is used to measure the work engagement of mental healthcare employees in this study. UWES is a scientifically verified and validated self-report questionnaire developed by Schaufeli and his colleagues. This scale was developed based on the prominent school of thought with regard to the definition of work engagement. Engagement refers to a persistent and pervasive affective-cognitive state without focusing on any particular event, object, individual, or behavior. The scale was validated by conducting exploratory and

confirmatory factor analyses using SPSS. The factor structure, cronbach alpha values, content validity, convergent validity and discriminant validity of the scale are discussed in detail in the chapter.

Levels of work engagement, vigor, dedication and absorption of respondents were measured based on the means scores obtained on work engagement scale. The scores obtained on subscales of Vigor, Dedication and Absorption were calculated separately and total work engagement score was calculated by summing up these scores obtained on three subscales. The scores on Vigor and absorption subscales range from 6 to 42 and the scores of Dedication subscale range from 5 to 35. The total score of work engagement scale range from 17 to 119. Work engagement of respondents are classified on three major levels as low level, medium level and high level based on tertiary deviation of total score. The first 1/3 of the score is considered as low level, the second 1/3 of the score is considered as the medium level and the third one is considered as the high level. The data collected from mental healthcare employees by the means of Utrecht Work Engagement Scale was analysed using different inferential and statistical techniques like descriptive statistics, T – Test, ANOVA and Post Hoc. The following table 6.1 depicts the cut off scores for identifying the organisational commitment levels:

Table 6.1

Cut off Scores of the Work Engagement Scale

Scales	Low Level	Medium Level	High Level
Vigor Scale	6.00 – 18.00	18.01 – 30.00	30.01 – 42.00
Dedication Scale	5.00 – 15.00	15.01 – 25.00	25.01 – 35.00
Absorption Scale	6.00 – 18.00	18.01 – 30.00	30.01 – 42.00
Overall Work Engagement	17.00 – 51.00	51.01 – 85.00	85.01 – 119.00

Source: Survey data

Based on the major topics analysed and evaluated, the chapter is divided into five sections for easy understanding of the interpreted data. These five sections include:

- Section A: Validation of the Work Engagement Scale
- Section B: Vigor of mental healthcare employees
- Section C: Dedication of mental healthcare employees
- Section D: Absorption of mental healthcare employees
- Section E: Total Work Engagement of mental healthcare employees

6.2 Demographic Profile of the Respondents

Out of the 285 respondents 122 respondents are males and 163 respondents are females. 57% of the respondents are married and 34% are single. Respondents are consisted of different occupational status as nurse (196), psychiatrists (44), psychologists (19) and social worker (26). Respondents from private institutions occupy 73% and 77 respondents belongs to public sector. Based on experience respondents are divided into three categories as low experienced (132), moderately experienced (105) and high experienced (48) (Table 6.2).

Table 6.2

Demographic Profile of Respondents

Category	Status	Frequency	Percent	Total
Gender	Male	122	42	285
	Female	163	57	
Marital status	Single	98	34	285
	Married	187	65	
Occupation	Nurse	196	68	285
	Psychiatrist	44	15	
	Psychologist	19	6	
	Social Worker	26	9	
Organisation	Public Sector	77	27	285
	Private Sector	208	73	
Work Experience	Low experienced	132	46	285
	Moderately experienced	105	36	
	High experienced	48	16	

Source: Survey data

6.3 Section A: Validation of the Work Engagement Scale

Work engagement, the opposite pole of burnout refers to the psychological state of mind that is characterised by vigor, dedication and absorption. Recently research studies and organisations have focused highly on the emerging work engagement aspects and practices to enhance and utilise the available human resource skills at an optimum level. Utrecht Work Engagement Scale (UWES) is used to measure the work engagement of mental healthcare employees in this study. UWES is a scientifically verified and validated self-report questionnaire developed by Schaufeli and his colleagues. This scale was developed based on the prominent school of thought with regard to the definition of work engagement. Engagement refers to a persistent and pervasive affective-cognitive state without focusing on any particular event, object, individual, or behavior. Vigor means the high degree of energy, enthusiasm and interest expressed by employees during their work. Dedication is about "being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge" (Schaufeli et al., 2002). The final component absorption is identified as "being fully concentrated and happily engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work" (Schaufeli et al., 2002). Utrecht Work Engagement Scale (UWES) was validated and factor structure, factor loadings and different scale validities were once again confirmed for this study by conducting exploratory and confirmatory factor analyses using SPSS and Amos software packages.

6.3.1 Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is a multivariate statistical technique used to reduce a given data to a smaller set of summary variables. It is used to explore the underlying theoretical structure of the phenomena studied. It identifies the structure of the relationship between a variable and respondents in a dataset and provides a factor structure by grouping the variables based on strong correlations. Work Engagement scale was subjected to factor analysis in order to explore and identity the accurate factors of work engagement. All seventeen statements under

three subscales of Utrecht Work Engagement Scale were subjected to the factor analysis. Primarily the two tests of Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett Test of Sphericity was done to know and verify the adequacy and appropriateness of dataset for factorisation. The Kaiser-Meyer-Olkin measure of sampling adequacy is an index used for comparing the magnitude of observed correlation coefficients to the magnitude of the partial correlation coefficients. Usually KMO score vary between zero and one where zero indicates the largeness of partial correlation in relation to the sum of correlation that makes factorisation impossible. If the value is close to one it indicates that pattern of correlation are relatively compact and factorisation can be conducted for extracting distinct and reliable factors.

Table 6.3

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.845
Bartlett's Test of Sphericity	**Approx. Chi-Square**	1407.632
	Df	136
	Sig.	.000

Source: Survey data

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was found to be 0.845 and the Bartlett Test of Sphericity was significant ($p < 0.001$) as the Chi Square value is 1407.632 with 136 degrees of freedom. As the value of the test statistic for sphericity is large and the associated significance level is small, it is seemed that the population correlation matrix is not an identity. It clearly provides support for factorisation and doing further analyses (Table 6.3).

As the data was found adequate for factorisation the factor analysis was conducted using exploratory factor analysis in SPSS. Principal Component Analysis method was used for extraction and Varimax with Kaiser Normalization method was used for rotation in this study. The rotation was converged in five iterations. Table 2 below provides the details of each factor in work engagement scale along with the items contributing to it and the component loadings for each item. Table 6.4 below

provides the details of each factor in work engagement scale along with items contributing it and component loadings for each item.

Table 6.4

Rotated Component Matrix

S. No.	Statements	Component		
		1	2	3
A1	I am immersed in my work.	.791		
A2	I feel happy when I am working intensely.	.779		
A3	I get carried away when I am working.	.745		
A4	It is difficult to detach myself from my job.	.713		
A5	Time flies when I'm working.	.711		
A6	When I am working, I forget everything else around me.	.692		
B1	My job inspires me.		.800	
B2	I am proud of the work that I do.		.779	
B3	I am enthusiastic about my job.		.742	
B4	I find the work that I do full of meaning and purpose.		.741	
B5	To me, my job is challenging.		.731	
C1	At my work, I always persevere, even when things do not go well.			.689
C2	At my job, I am very resilient, mentally.			.677
C3	I can continue working for very long periods at a time.			.649
C4	When I get up in the morning, I feel like going to work.			.622
C5	At my job, I feel strong and vigorous.			.589
C6	At my work, I feel bursting with energy.			.577
	Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
	a. Rotation converged in 5 iterations.			

Source: Survey data

The table 6.4 illustrates the Rotated Component Matrix. All variables with factor loadings above 0.70 were selected for the study. After performing Varimax Rotation Method in Kaiser Normalisation, the first factor named as Vigor comprised

of six items. These items include C1, C2, C3 and C4, C5 and C6. In first factor the item C1 showed more (.689) loading followed by C2 (.677). The loadings of C5 and C6 are .589 and .577 respectively. The second factor named Dedication comprised of five items as B1, B2, B3, B4 and B5. Among these four items B1 (.800) showed the highest loading and B5 (.731) showed the lowest loading. The third factor named as Absorption also six items namely A1, A2, A3, A4, A5 and A6 in which A1 (.791) showed more loading and A6 (.692) showed the less loading.

6.3.2 Factor Name, Variance and Reliability

The rotated component matrix explains that all statements were loaded as per the original adopted Utrecht Work Engagement Scale (UWES). The first six statements were grouped under the component of Absorption, the next five statements under the component of Dedication and the last six statements under the component of Vigor. The explained variance and reliability of rotated factors are illustrated in the below table as obtained from the output of factor analysis (Table 6.5). It clearly indicates that all extracted factors have adequate reliability as the Cronbach's alpha is above 0.700 for all three factors.

Table 6.5

Factor Name, Variance and Reliability

Factor	Variance	Reliability (Cronbach's Alpha)	Factor Name
1	14.892	0.713	**Vigor**
2	17.420	0.829	**Dedication**
1	20.011	0.836	**Absorption**

Source: Survey data

6.3.3 Confirmatory Factor Analysis for Work Engagement Scale

As exploratory factor analysis could extract three factors as explained in original work engagement scale the next step is to conduct a confirmatory factor analysis to finalise and confirm the 'Work Engagement' construct identified. The data for analysis were found free from missing values and outliers

6.3.4 Measurement model of 'Work Engagement'

The measurement model of work engagement along with its three factors as vigor, dedication and absorption was tested by a Confirmatory Factor Analysis using Amos 21. This measurement model was developed to assess the work engagement of mental healthcare employees related with certain demographic factors as gender, marital status, organisation, occupation and experience. The reliability of the scale developed was confirmed through Cronbanch's alpha value method.

Table 6.6

Model fit Indices

Model fit Indices	Values	
	Obtained	**Recommended**
CMIN / DF	**3.02**	**<5**
RMR	0.044	<0.05
GFI	0.911	>0.9
AGFI	0.921	>0.9
PGFI	0.889	>0.9
NFI	0.913	>0.9
RFI	0.910	>0.9
IFI	0.917	>0.9
TLI	0.919	>0.9
CFI	0.927	>0.9
RMSEA	0.062	<0.08

Source: Survey data

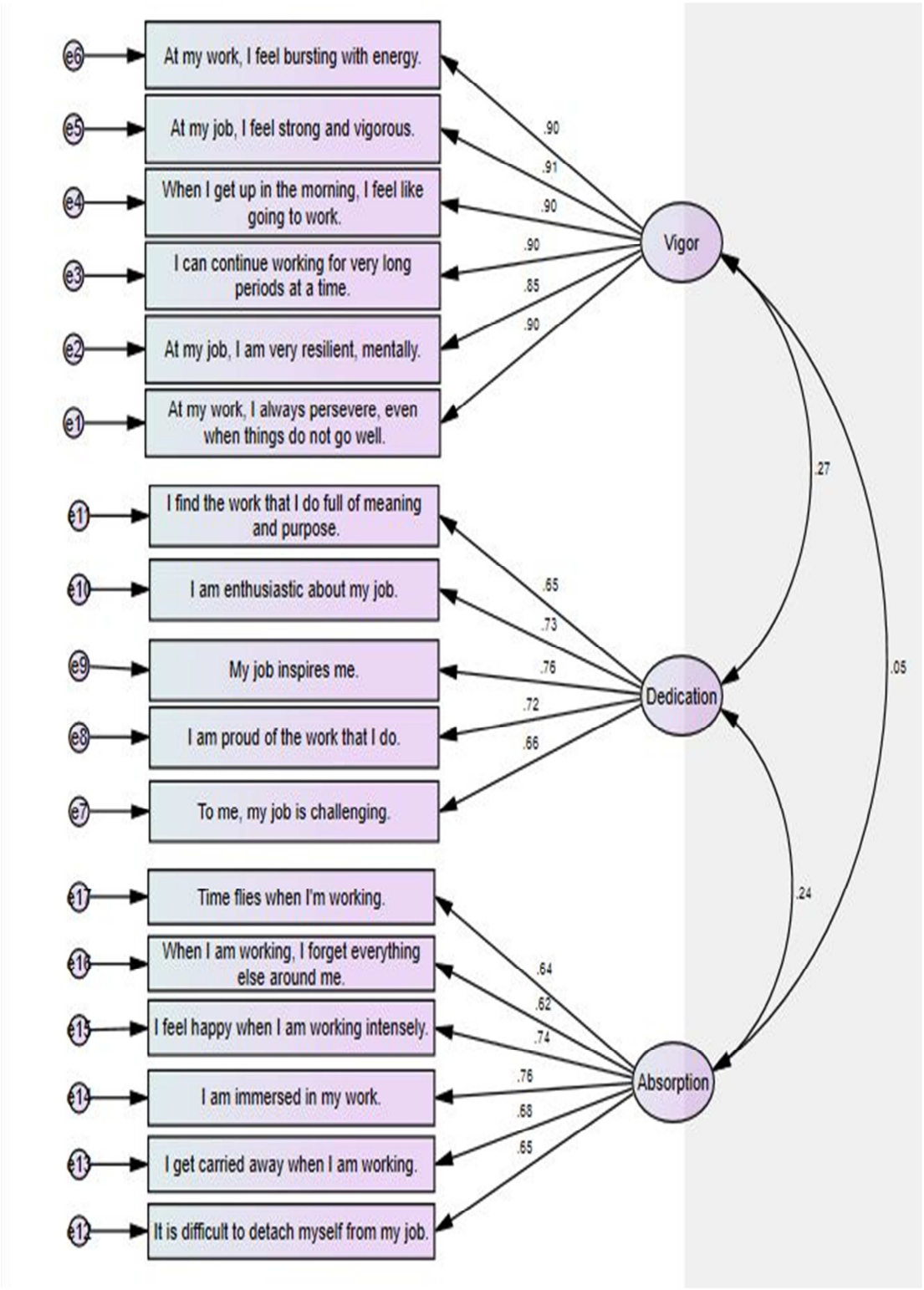


Fig 6.1: Measurement Model for Work Engagement

The structural equation model using Amos provides several indices of fit like measure of absolute fit, comparative fit, and parsimonious fit etc. The table 6.6 provides the major model fit indices and its obtained values for work engagement model.

Fig 6.1 shows the measurement model and Table 6.6 shows the different model fit indices of the confirmatory factor analysis. Usually a measurement model with model fit indices of greater than 0.09 and Root Mean Square Error of Approximation (RMSEA) less than 0.08 is considered to be close fit with the dataset. The measurement model of organisational commitment was found to be good fitting model with recommended indices as given in Table 4. All the paths shown in the model are significant as critical ratios were above 1.96.

6.3.5 Validation of the Work Engagement Scale

After the development of work engagement instrument it was subjected for validation tests to ensure that the developed instrument really measure work engagement construct. For any measuring instrument validity and reliability are the two critical criteria that verify the degree to which a measuring instrument measures what is supposed to measure. Various validity tests were performed to assess the goodness of measures of the instrument. Validation tests such as convergent and discriminant validities were conducted. The detailed analysis is given below.

Convergent Validity

Convergent validity tests establish whether responses to the questions are sufficiently correlated with the respective latent variables. Convergent validity is usually assessed based on the comparison of loadings calculated through a non-confirmatory analysis with a fixed value (Ketkar, Kock, Parente & Verville, 2012). Two criteria are recommended as the basis for concluding that a measurement model has acceptable convergent validity: p values associated with the loadings should be lower than 0.05 and loadings for indicators of all respective latent variables must be 0.5 or above for the convergent validity of a measure to be acceptable (Hair et al., 2009).

Table 6.7

Factor loadings and p values for Work Engagement

S. No.	Statements	Estimate	P value
A1	I am immersed in my work ← Vigor	.908	<0.001
A2	I feel happy when I am working intensely ← Vigor	.851	<0.001
A3	I get carried away when I am working ← Vigor	.903	<0.001
A4	It is difficult to detach myself from my job ← Vigor	.895	<0.001
A5	Time flies when I'm working ← Vigor	.911	<0.001
A6	When I am working, I forget everything else around me ← Vigor	.900	<0.001
B1	My job inspires me ← Dedication	.663	<0.001
B2	I am proud of the work that I do ← Dedication	.715	<0.001
B3	I am enthusiastic about my job ← Dedication	.758	<0.001
B4	I find the work that I do full of meaning and purpose ← Dedication	.733	<0.001
B5	To me, my job is challenging ← Dedication	.647	<0.001
C1	At my work, I always persevere, even when things do not go well ← Absorption	.655	<0.001
C2	At my job, I am very resilient, mentally ← Absorption	.681	<0.001
C3	I can continue working for very long periods at a time ← Absorption	.757	<0.001
C4	When I get up in the morning, I feel like going to work ← Absorption	.739	<0.001
C5	At my job, I feel strong and vigorous ← Absorption	.623	<0.001
C6	At my work, I feel bursting with energy ← Absorption	.644	<0.001

Source: Survey data

The output clearly indicates that the factor loadings associated with the latent variables ranges between 0.623 and 0.911 as shown in Table 6.7. Hence it is reasonable to assume that the measurement model for the construct of work engagement has acceptable convergent validity.

Discriminant Validity

Discriminant validity tests verify whether responses from the respondents to the questions are either correlated or not with other latent variables. A measurement model has acceptable discriminant validity if the square root of the average variance extracted (AVE) for each latent variable is higher than any of the correlations between the latent variable under consideration and any of the other latent variables in the measurement model (Fornell & Larcker, 1981).

Table 6.8

Average Variance Extracted and Inter construct Correlation

Factors	AVE	Correlation	
Vigor	0.895	Vigor ↔ Dedication	0.27
Dedication	0.70	Vigor ↔ Absorption	0.05
Absorption	0.68	Dedication ↔ Absorption	0.24

Source: Survey data

Discriminant validity was confirmed by examining correlations among the constructs. As a rule Discriminant validity was confirmed by examining correlations among the constructs. As a rule of thumb, a correlation of 0.85 degree or above indicates poor discriminant validity in structural equation modelling (David 1998). In work engagement construct none of the correlations among variables were found to be above 0.85 (Table 6.8) and adequate discriminant validity was suggested for the measurement model.

In addition, to confirm discriminant validity, the inter construct correlation were calculated and compared with average variance extracted. In this measurement model all variance extracted (AVE) estimates were larger than the squared inter construct correlation estimates (Table 6.8) and the discriminant validity was confirmed.

Normality

For effective analyses and accurate results most of the statistical methods and tools require the assumption that the variables observed are normally distributed. In multivariate statistics, the assumption is that the combination of variables follows a multivariate normal distribution. Since there is no direct test for multivariate normality, we generally test each variable individually and assume that they are multivariate normal if they are individually normal, though this may not be necessarily the case. In SEM model, estimation and testing are usually based on the validity of multivariate normality assumption, and lack of normality will adversely affect goodness-of-fit indices and standard errors (Baumgartner and Homburg 1996; Hulland et al 1996; Kassim 2001). The univariate normality of the variables was tested using Kolomogorov- Smirnov test with Lillefors significance correction.

Table 6.9

One-Sample Kolmogrov- Smirnov Test

S. No.	Statements	N	Std. Deviation	Sig.
A1	At my work, I feel bursting with energy.	285	.744	0.000
A2	At my job, I feel strong and vigorous.	285	.723	0.000
A3	When I get up in the morning, I feel like going to work.	285	.764	0.000
A4	I can continue working for very long periods at a time.	285	.702	0.000
A5	At my job, I am very resilient, mentally.	285	.740	0.000
A6	At my work, I always persevere, even when things do not go well.	285	.734	0.000
B1	I find the work that I do full of meaning and purpose.	285	.795	0.000
B2	I am enthusiastic about my job.	285	.817	0.000
B3	My job inspires me.	285	.872	0.000
B4	I am proud of the work that I do.	285	.771	0.000
B5	To me, my job is challenging.	285	.891	0.000

S. No.	Statements	N	Std. Deviation	Sig.
C1	Time flies when I'm working.	285	.888	0.000
C2	When I am working, I forget everything else around me.	285	1.073	0.000
C3	I feel happy when I am working intensely.	285	.897	0.000
C4	I am immersed in my work.	285	.913	0.000
C5	I get carried away when I am working.	285	1.102	0.000
C6	It is difficult to detach myself from my job.	285	1.021	0.000

Source: Survey data

The results of the Kolomogorov- Smirnov test with Lillefors significance correction as given in table 6.9 revealed that none of the variables are normally distributed.

Statisticians and researchers usually use skewness and kurtosis tests for assuming the normality of certain variables. Skewness refers to the asymmetry of a distribution whereas kurtosis relates to the peakedness of a distribution. A distribution is said to be normal when the values of skewness and kurtosis are equal to zero (Tabachnick and Fidell; 2001). However, there are few clear guidelines about how much non-normality is problematic. It is suggested that absolute values of univariate skewness indices greater than 3.0 seem to describe extremely skewed data sets (Chou and Bentler 1995). In kurtosis a kurtosis index greater than 10.0 is considered as problematic.

Table 6.10

Skewness and Kurtosis

S. No.	Statements	Std. Deviation	Skewness		Kurtosis	
		Statistic	Statistic	Std. Error	Statistic	Std. Error
A1	At my work, I feel bursting with energy.	.744	.565	.144	-.197	.288
A2	At my job, I feel strong and vigorous.	.723	.486	.144	-.442	.288
A3	When I get up in the morning, I feel like going to work.	.764	.643	.144	-.011	.288
A4	I can continue working for very long periods at a time.	.702	.431	.144	-.666	.288
A5	At my job, I am very resilient, mentally.	.740	.568	.144	-.284	.288
A6	At my work, I always persevere, even when things do not go well.	.734	.480	.144	-.645	.288
B1	I find the work that I do full of meaning and purpose.	.795	-.294	.144	-.116	.288
B2	I am enthusiastic about my job.	.817	-.258	.144	-.192	.288
B3	My job inspires me.	.872	-.302	.144	-.240	.288
B4	I am proud of the work that I do.	.771	-.336	.144	.116	.288
B5	To me, my job is challenging.	.891	-.120	.144	-.710	.288
C1	Time flies when I'm working.	.888	-.095	.144	.051	.288
C2	When I am working, I forget everything else around me.	1.073	-.013	.144	-.941	.288
C3	I feel happy when I am working intensely.	.897	-.415	.144	1.211	.288
C4	I am immersed in my work.	.913	-.487	.144	1.385	.288
C5	I get carried away when I am working.	1.102	-.310	.144	-.966	.288
C6	It is difficult to detach myself from my job.	1.021	.146	.144	.662	.288

Source: Survey data

The results as shown in table 6.10 reveal that all the variables in this model fall under the kurtosis value of 10 and Skewness value of 3. Thus it can be inferred that the kurtosis and skewness values were not problematic in this study and parametric test can be used for analysis purposes.

6.4 Section B: Vigor of Mental Healthcare Employees

Vigor is the first component in three component definition of work engagement. It usually refers to the high levels of energy and mental resilience that an employee possesses while working in an organisation. Vigor represents an individual's level of energy, his willingness to invest himself in his work. It is about an employee's resilience to work and not getting easily fatigued. Vigor mainly includes the ability of employees to deal persistently with difficult situations that he confronts while working in an organisation. Vigor component of work engagement is considered as the direct opposite of exhaustion, a symptom of burnout.

The level and degree of vigor for mental healthcare employees in Kerala (n= 285) was assessed using the descriptive statistics. The mean score in vigor scale (M = 28.73, SD = 2.60) as shown in table 6.11 revealed that mental healthcare employees in Kerala are at medium level of vigor. It means that mental healthcare employees have a medium level of energy and resilience while working.

Table 6.11

Vigor of Mental Healthcare Employees

Vigor of mental healthcare employees					
Dimension	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Vigor	285	21.00	38.33	28.73	2.60
Valid N (listwise)	285				

Source: Survey data

6.4.1 Category wise Vigor of mental healthcare employees

Vigor level of mental healthcare employees in each category was calculated separately as illustrated in following table 6.12 and Fig 6.2

Table 6.12

Category Wise Vigor of Mental Healthcare Employees

Category	Status	N	Mean	SD
Gender	Male	122	29.41	2.59
	Female	163	28.22	2.49
Marital status	Single	98	30.01	2.43
	Married	187	28.06	2.44
Occupation	Psychiatrist	44	28.09	2.70
	Psychologist	19	31.21	1.90
	Social Worker	26	32.03	2.58
	Nurse	196	28.20	2.15
Organisation	Public Sector	77	27.41	1.99
	Private Sector	208	29.22	2.63
Work Experience	Low experienced	132	29.61	2.48
	Moderately experienced	105	28.05	2.42
	High experienced	48	27.81	2.57

Source: Survey data

Vigor scores (table 6.12) reveal that all employee categories other than psychologists, social workers and female employees scored a medium level in vigor scale. In gender category male employees (M = 29.41, SD = 2.59) scored more in vigor subscale than female employees (M = 28.22, SD = 2.49). Unmarried employees (M = 30.01, SD = 2.43) possessed a high level of vigor compared to married employees (M = 28.06, SD = 2.44) who could possess a medium level. Social workers (M = 32.03, SD = 2.58) and psychologist (M = 31.21, SD = 1.90) have higher vigor score than psychiatrists (M = 28.09, SD = 2.70) and nurses (M = 28.20, SD = 2.15) who showed a medium level of vigor. Employees in private sector (M = 29.22, SD = 2.63) scored more in vigor than public sector employees (M = 27.41, SD = 1.99). In experience category low experienced employees (M = 29.61, SD = 2.48) possessed a high margin of vigor compared to moderately experienced (M = 28.05, SD = 2.42) and highly experienced employees (M = 27.81, SD = 2.57).

Among all categories social workers scored the highest in vigor scale and public sector employees scored the lowest.

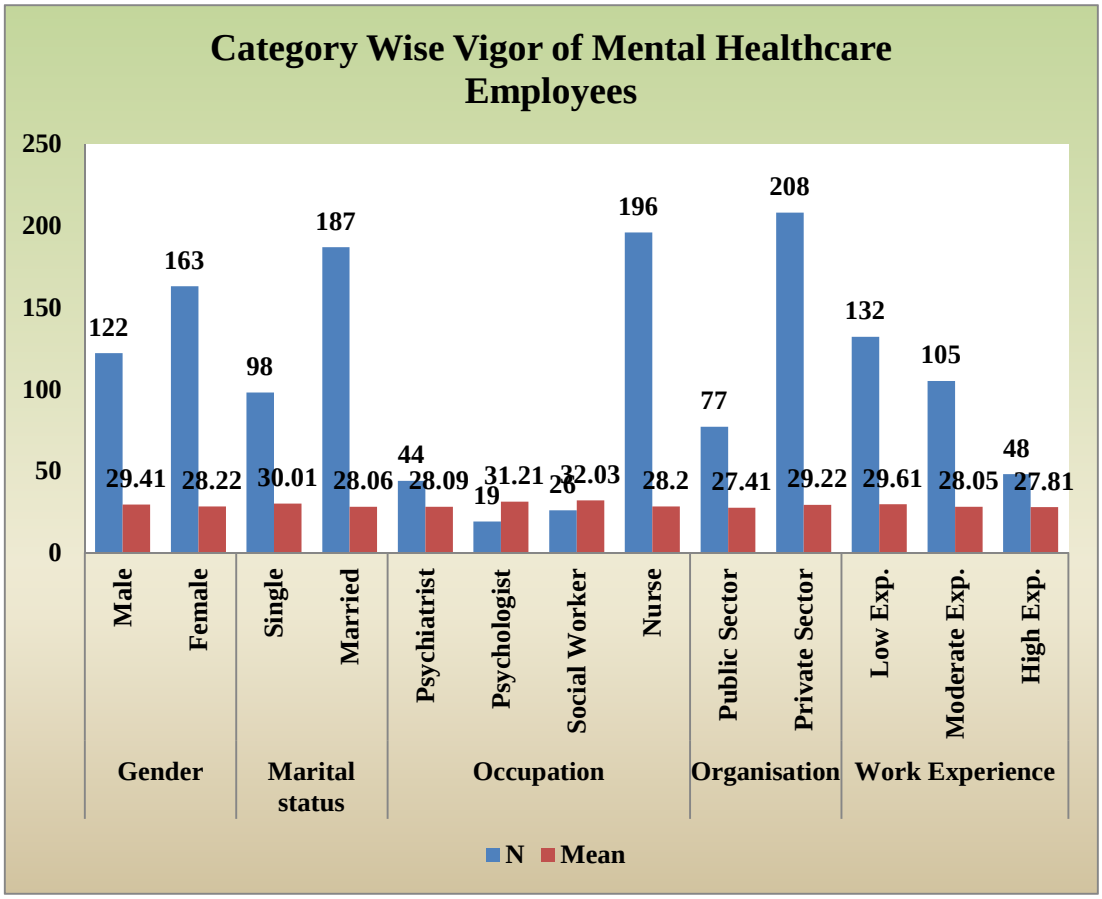


Fig 6.2: Category wise Vigor of mental healthcare employees

6.4.2 Comparisons of Vigor Based on Demographics:

The mean scores of Vigor of mental healthcare employees were compared based on the major five demographic factors explored in the study. These demographic factors include gender, marital status, occupational status, organisation and work experience. Statistical tests like T test, ANOVA and Post Hoc tests were used to test the hypotheses.

Gender Based Comparison:

The Vigor level of mental healthcare employees was examined based on their gender. T test was used to assess the mean differences in Vigor based on

gender. As per T test results shown in table 46.13 the Vigor of male employees (M = 29.41, SD = 2.59) and female employees (M = 28.22, SD = 2.49) were found to differ significantly; t (283) = 4.155, p = <0.001. Male employees scored a highest level of vigor compared to the female employees. Both male and female employees scored a moderate degree of vigor where male employees significantly differed from female employees. Null hypothesis was rejected as p value is <0.5 and significant difference was established between two gender groups.

Table 6.13`

Comparison of Vigor Based on Gender

Gender	N	Mean	SD	t value	p value
Male	122	29.41	2.59	4.155	.000
Female	163	28.22	2.49		

Source: Survey data

Marital Status based comparison:

The vigor of single and married employees along with mean differences was examined by using T test. The test statistics (table 6.14) indicated that vigor level of unmarried employees (M = 30.01, SD = 2.43) in mental healthcare is significantly different from that of married employees (M = 28.06, SD = 2.44). Null hypothesis was rejected as the p value is less than 0.05 and significance difference was established between two different marital groups; t (283) = 6.373, p = <0.001. Unmarried employees scored highly in vigor scale while married employees scored only a medium level of vigor.

Table 6.14

Comparison of Vigor Based on Marital Status

Marital Status	N	Mean	SD	t value	p value
Single	98	30.01	2.43	6.373	.000
Married	187	28.06	2.44		

Source: Survey data

Organisational sector based comparison:

T test was adopted to assess the differences in vigor level of mental healthcare employees based on the organisational sector they work. Employees from private sector possessed a high degree of vigor compared to employees from public sector institutions. Both private sector (M = 29.22, SD = 2.63) and public sector employees (M = 27.41 SD = 1.99) scored a medium level in vigor subscale. The test results (table 6.15) revealed that the vigor level of private mental health employees is significantly different from vigor level of public sector employees. Null hypothesis was rejected to establish a statistically significance difference in vigor level based on organisational sector; t (283) = -6.360, p = <0.001.

Table 6.15

Comparison of Vigor Based on Organisational Sector

Organisational Sector	N	Mean	SD	t value	p value
Public Sector	77	27.41	1.99	-6.360	.000
Private Sector	208	29.22	2.63		

Source: Survey data

Designation based comparison:

The vigor level of mental healthcare employees was analysed based on their occupational designations. One way ANOVA was used to investigate the differences in vigor level of employees with different designations.

Table 6.16

Comparison of Vigor Based on Designation

Designation	N	Mean	SD	F value	p value
Psychiatrist	44	28.09	2.70	31.226	.000
Psychologist	19	31.21	1.90		
Social Worker	26	32.03	2.58		
Nurse	196	28.20	2.15		

Source: Survey data

One way ANOVA results (table 6.16) revealed that the vigor level is significantly different for each different designation group. Psychiatrists, psychologists, social workers and nurses differed significantly in their respective vigor levels; F (3, 281) = 31.226, p = <0.001. Null hypothesis was rejected as p value is less than 0.05 and statistically significant difference was established. For getting a clear picture and understanding one who caused for statistically significant difference the Post Hoc test was adopted.

Table 6.17

Comparison of Vigor Based on Designation, Post Hoc Tests

Occupational Status (I)	**Occupational Status (J)**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**
Psychiatrist	Psychologist	-3.11962*	.62350	.000**
	social worker	-3.94755*	.56183	.000**
	Nurse	-.11317	.37890	.991
Psychologist	Psychiatrist	3.11962*	.62350	.000**
	social worker	-.82794	.68551	.609
	Nurse	3.00644*	.54574	.000**
social worker	Psychiatrist	3.94755*	.56183	.000**
	Psychologist	.82794	.68551	.609
	Nurse	3.83438*	.47406	.000**
Nurse	Psychiatrist	.11317	.37890	.991
	Psychologist	-3.00644*	.54574	.000**
	social worker	-3.83438*	.47406	.000**
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post Hoc test results as shown in table 6.17 revealed that the difference in vigor level of employees is significantly different. Psychiatrists' (M = 28.09, SD = 2.70) and Nurses' (M = 28.20, SD = 2.15) vigor was found to be significantly different from vigor level of psychologists (M = 31.21, SD = 1.90) and

social workers (M = 32.03, SD = 2.58). Post Hoc tests couldn't reveal any statistically significant difference between the vigor level of psychiatrists and nurses as well as psychologists and social workers. Among all employee designations psychologists and social workers scored highly in vigor dimension while psychiatrists and nurses possessed a medium level of vigor. Social workers were found to be highest in vigor dimension compared to others and psychiatrists scored lowest.

Work Experience based comparison:

One way ANOVA was used to examine the differences in vigor of mental healthcare employees based on their work experience in their respective organisations. Employees were classified in to three categories as low experienced, moderately experienced and highly experienced.

Table 6.18

Comparison of Vigor Based on Work Experience

Work Experience	N	Mean	SD	F value	p value
Low Experienced	132	29.61	2.48	15.100	.000
Moderately Experienced	105	28.05	2.42		
Highly Experienced	48	27.81	2.57		

Source: Survey data

As per one way ANOVA results (table 6.18) mental healthcare employees were found to be significantly different in vigor based on their experience. As the p value is less than 0.05 ($F(2, 282) = 15.100$, $p = <0.001$) null hypothesis was rejected and statistically significant difference was established among highly, moderately and low experienced employees. For precise analysis of the difference in means scores Post hoc comparisons were conducted using the Tukey HSD test.

Table 6.19

Comparison of Vigor Based on Work Experience, Post Hoc Tests

Work Experience (I)	Work Experience (J)	Mean Difference (I-J)	Std. Error	Sig.
Low Experienced	Moderately Experienced	1.55649*	.32410	.000**
	Highly Experienced	1.80114*	.41775	.000**
Moderately Experienced	Low Experienced	-1.55649*	.32410	.000**
	Highly Experienced	.24464	.43183	.957
Highly Experienced	Low Experienced	-1.80114*	.41775	.000**
	Moderately Experienced	-.24464	.43183	.957
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post hoc results (table 6.19) revealed that the vigor level of low experienced mental healthcare employees (M = 29.61, SD = 2.48) is significantly different from that of highly (M = 27.81, SD = 2.57) and moderately experienced (M = 28.05, SD = 2.42) employees. The low experienced employees scored highly in vigor scale with mean score of 29.6 compared to highly and moderately experienced employees. The scores of employees in all three experience category showed a medium level in vigor component.

6.5 Section C: Dedication of Mental Healthcare Employees

Dedication is the second dimension of the tri-dimensional model of work engagement. Dedication refers to the involvement of an individual or an employee in his assigned work. Dedication generally makes an employee feel or experience a sense of significance, enthusiasm, and challenge in his work. Dedication component of work engagement is considered as the direct opposite of cynicism, a symptom of burnout. Dedication has similarities to Kahn's (1990) notion of meaningfulness in which an individual feels a sense of significance in their work that they are not only

proud of, but also enthusiastic to pursue. A person with high dedication towards his work is believed to find his work challenging and inspiring.

The dedication level of mental healthcare employees in Kerala was evaluated by means scores obtained in dedication scale. According to the scores obtained mental healthcare employees (n= 285) were found to be at the medium level of dedication. The mean score of dedication dimension of employees was 23.31 with a standard deviation of 3.20 (table 6.20) meaning that they possess a medium level of dedication towards the work.

Table 6.20

Dedication of Mental Healthcare Employees

CC of mental healthcare employees					
Dimension	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
CC	285	12.00	29.00	23.31	3.20
Valid N (listwise)	285				

Source: Survey data

6.5.1 Category wise Dedication of mental healthcare employees

Dedication level of mental healthcare employees in each category was calculated as shown in table 6.21 and Fig 6.3.

Table 6.21

Category Wise Dedication of Mental Healthcare Employees

Category	Status	N	Mean	SD
Gender	Male	122	23.59	3.19
	Female	163	23.10	3.19
Marital status	Single	98	25.23	2.51
	Married	187	22.31	3.06
Occupation	Psychiatrist	44	22.54	4.19
	Psychologist	19	23.42	3.77
	Social Worker	26	23.73	3.66
	Nurse	196	23.42	2.79

Category	Status	N	Mean	SD
Organisation	Public Sector	77	23.35	3.12
	Private Sector	208	23.30	3.23
Work Experience	Low experienced	132	24.29	3.02
	Moderately experienced	105	23.00	1.91
	High experienced	48	21.31	4.61

Source: Survey data

Dedication scores obtained in the scale (table 6.21) indicated that all employee categories other than unmarried employees possess a medium level of dedication in their work while unmarried employees scored a high level.

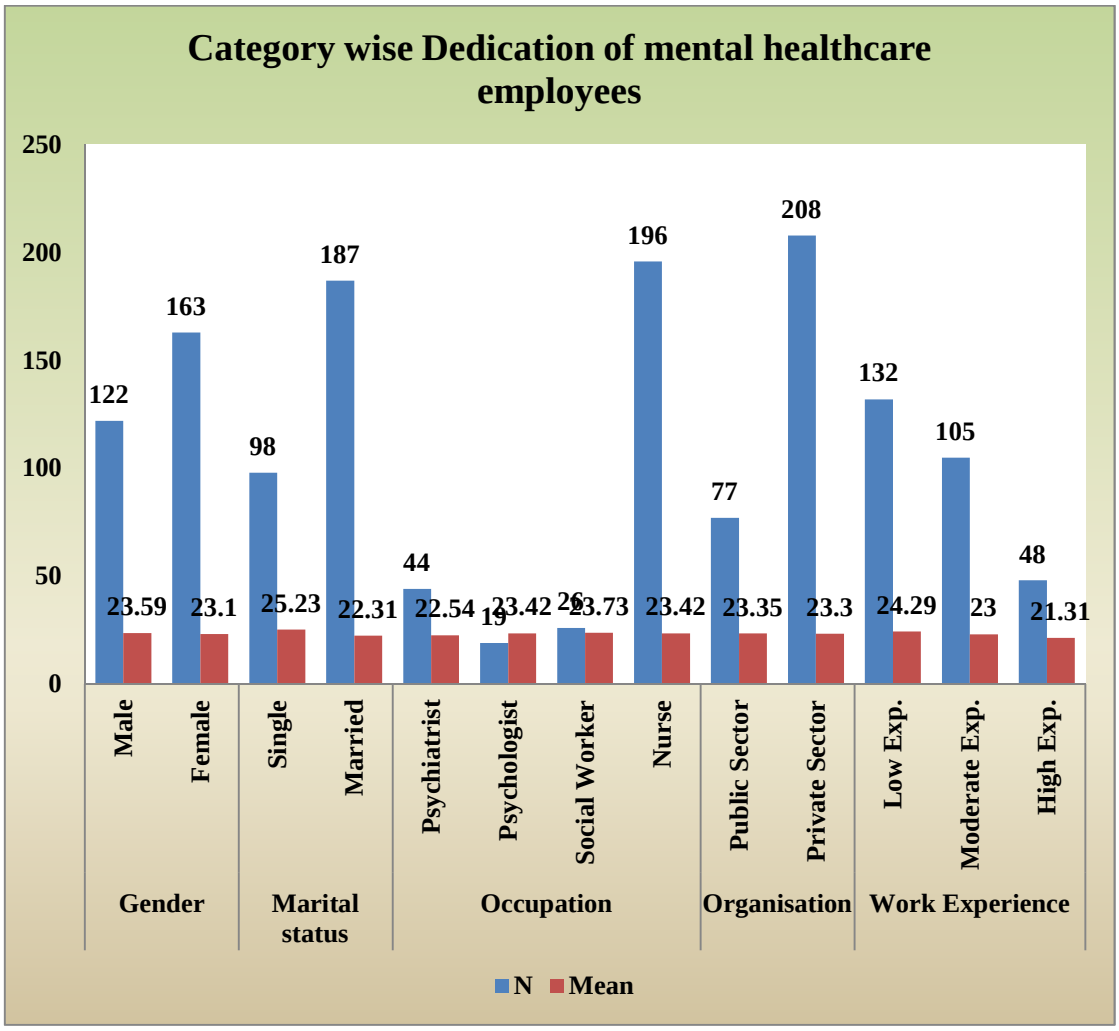


Fig 6.3: Category wise Dedication of mental healthcare employees

In gender category male employees (M = 23.59, SD = 3.19) are more dedicated than their female counterparts (M = 23.10, SD = 3.19). Unmarried employees (M = 25.23, SD = 2.51) were found to be high in dedication dimension compared to married employees (M = 22.31, SD = 3.06). Social workers (M = 23.73, SD = 3.66) scored more in dedication subscale compared to nurses (M = 23.42, SD = 2.79), psychologists (M = 23.42, SD = 3.77) and psychiatrists (M = 22.54, SD = 4.19). The scores obtained in dedication subscale were approximately same for both public (M = 23.35, SD = 3.12) and private sector employees (M = 23.30, SD = 3.23). In experience category low experienced employees (M = 24.29, SD = 3.02) were found to be highly dedicated to the work compared to moderately experienced (M = 23.00, SD = 1.91) and highly experienced employees (M = 21.31, SD = 4.61). Among all categories unmarried employees scored the highest and high experienced mental healthcare employees scored the lowest.

6.5.2 Comparisons of Dedication Based on Demographics:

The mean scores of dedication of mental healthcare employees were compared based on their demographic factors explored in the study. These demographic factors include gender, marital status, occupational status, organisation and work experience. Statistical tests like T test, ANOVA and Post Hoc tests were used to test the hypotheses.

Gender based comparison:

The differences in dedication level of male and female employees were explored. Male employees (n = 163) scored more (M = 5.01, SD = 0.65) in dedication dimension of work engagement than their female counterparts (n = 122, M = 4.25, SD = 0.74). Both male and female employees possessed a medium level of dedication T test was used to assess the significance of difference in dedication of males and females. Test results (table 6.22) indicated that the difference in dedication skill of mental healthcare employees based on gender was statistically insignificant and null hypothesis was not rejected as the p value is >0.05; t (283) = 1.291, p = 0.198.

Table 6.22

Comparison of Dedication Based on Gender

Gender	N	Mean	SD	t value	p value
Male	122	23.59	3.19	1.291	0.198
Female	163	23.10	3.19		

Source: Survey data

Marital Status based comparison:

The differences in dedication of single and married employees were examined. Unmarried employees were found to score high in dedication scale compared to married employees. Married employees scored a medium level of dedication with means score of 22.31 (SD = 3.06) while unmarried employees scored a high level (M = 25.23, SD = 2.51). T test was adopted to evaluate the significance of difference in dedication of single and married employees. The test statistics (table 6.23) indicated that difference in dedication of mental healthcare employees based on gender was statistically significant and null hypothesis was rejected as the p value is less than 0.05; t (283) = 8.359, p = <0.001.

Table 6.23

Comparison of Dedication Based on Marital Status

Marital Status	N	Mean	SD	t value	p value
Single	98	25.23	2.51	8.359	.000
Married	187	22.31	3.06		

Source: Survey data

Organisational sector based comparison:

T test was adopted to assess the significance of differences in dedication of mental healthcare employees based on the organisational sector they work. Mental healthcare employees from both public (M = 23.35, SD = 3.12) and private (M = 23.30, SD = 3.23) sectors scored a medium level of dedication. The T test results (table 6.24) revealed that the difference in dedication of both public and private

sector employees was not statistically significant. Null hypothesis was not rejected as the p value is greater than 0.05; t (283) = -0.023, p = 0.982.

Table 6.24

Comparison of Dedication Based on Organisational Sector

Organisational Sector	N	Mean	SD	t value	p value
Public Sector	77	23.35	3.12	0.112	0.911
Private Sector	208	23.30	3.23		

Source: Survey data

Designation based comparison:

The Dedication of mental healthcare employees was analysed based on their occupational designations. One way ANOVA was used to investigate the significance of differences in dedication level of psychiatrists, psychologists, social workers and nurses.

Table 6.25

Comparison of Dedication Based on Designation

Designation	N	Mean	SD	F value	p value
Psychiatrist	44	22.54	4.19	0.278	0.841
Psychologist	19	23.42	3.77		
Social Worker	26	23.73	3.66		
Nurse	196	23.42	2.79		

Source: Survey data

The mean scores obtained for employees with different designations in dedication dimension of work engagement revealed psychiatrists (M = 22.54, SD = 4.19), psychologists (M = 23.42, SD = 3.77), nurses (M = 23.42, SD = 2.79) and social workers (M = 23.73, SD = 3.66) possessed a medium level of dedication. One way ANOVA was used to investigate the significance of differences in dedication of employees with different designations. One way ANOVA results (table 6.25) showed that difference in dedication of mental healthcare employees with different

occupational designations was not statistically significant. Null hypothesis was not rejected as the p value is greater than 0.05; F (3, 281) = 0.278, p = 0.841. Social workers scored highest in dedication scale and psychiatrists and nurses scored the lowest. Employees in all designations scored approximately same scores.

Work Experience based comparison:

The difference in dedication level of mental healthcare employees was examined based on their experience. One way ANOVA was conducted to examine the significance of mean differences in dedication of mental healthcare employees based on their work experience in their respective organisations. Employees were classified in to three categories as low experienced, moderately experienced and highly experienced.

Table 6.26

Comparison of Dedication Based on Work Experience

Work Experience	N	Mean	SD	F value	p value
Low Experienced	132	24.29	3.02	15.578	.000
Moderately Experienced	105	23.00	1.91		
Highly Experienced	48	21.31	4.61		

Source: Survey data

As per one way ANOVA results (table 6.26) mental healthcare employees were found to be significantly different in dedication based on their experience. The difference in mean score was found to be significant as the p value was less than 0.05 (F (2, 282) = 15.578, p = <0.001). Null hypothesis was rejected to establish a statistically significant difference among highly, moderately and low experienced mental healthcare employees. For precise analysis of the differences and finding the cause of difference in means scores Post hoc comparisons were conducted using the Tukey HSD test.

Table 6.27

Comparison of Dedication Based on Work Experience, Post Hoc Tests

Work Experience (I)	Work Experience (J)	Mean Difference (I-J)	Std. Error	Sig.
Low Experienced	Moderately Experienced	1.29545*	.39551	.003**
	Highly Experienced	2.98295*	.50980	.000**
Moderately Experienced	Low Experienced	-1.29545*	.39551	.003**
	Highly Experienced	1.68750*	.52698	.004**
Highly Experienced	Low Experienced	-2.98295*	.50980	.000**
	Moderately Experienced	-1.68750*	.52698	.004**

*The mean difference is significant at the 0.05 level
** reject (Ho)

Source: Survey data

The Tukey Post hoc results as shown in table 6.27 revealed that the dedication level of employees in each experience category was significantly different from others and null hypotheses were rejected in all cases as the p value was less than 0.05 in all three cases. Low experienced (M = 24.29 SD = 3.02), highly experienced (M = 21.31 SD = 4.61) and moderately experienced (M = 23.00 SD = 1.91) mental healthcare employees possessed a medium level of dedication. Among three experience categories low experienced employees scored the highest score in dedication subscale and highly experienced employees scored the lowest score. The difference between both scores was statistically different as per Post Hoc test results.

6.6 Section D: Absorption of Mental Healthcare Employees

Absorption is the third dimension of the tri-dimensional model of work engagement. Absorption refers to the degree by which an employee in a specific organisation get engrossed or immersed in his assigned work. An employee is

seemed to possess absorption once he gets fully concentrated and happily engrossed in his work. Positively absorbed employees feel as they time passes quickly while working. It is very difficult to detach an absorbed employee from his work.

The absorption level of mental healthcare employees in Kerala was assessed by calculating the scores obtained in absorption scale. The analysis of data clearly indicated that mental healthcare employees (n= 285) are in medium level of absorption dimension such like in the vigor subscale. The mean score of absorption dimension of employees was found to be 26.64 with a standard deviation of 4.38 (table 6.28) which come in the range of medium level and means that mental healthcare employees are moderately engrossed or immersed in their assigned work.

Table 6.28

Absorption of Mental Healthcare Employees

Absorption of mental healthcare employees					
Dimension	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Absorption	285	10	37.00	26.64	4.38
Valid N (listwise)	285				

Source: Survey data

6.6.1 Category wise absorption of mental healthcare employees

Absorption level of mental healthcare employees in each category was calculated and analysed as depicted in table 6.29 and Fig 6.4

Table 6.29

Category Wise Absorption of Mental Healthcare Employees

Category	Status	N	Mean	SD
Gender	Male	122	26.27	4.33
	Female	163	26.92	4.40
Marital status	Single	98	29.83	4.16
	Married	187	24.97	3.48
Occupation	Psychiatrist	44	26.20	3.38
	Psychologist	19	27.36	4.36
	Social Worker	26	20.07	4.33
	Nurse	196	27.54	3.83
Organisation	Public Sector	77	27.16	5.11
	Private Sector	208	26.45	4.07
Work Experience	Low Experienced	132	29.21	3.86
	Moderately Experienced	105	24.59	3.20
	High Experienced	48	24.06	4.11

Source: Survey data

Scores obtained in absorption subscale revealed that all employee categories in mental health sector possess a medium level of absorption in assigned work.

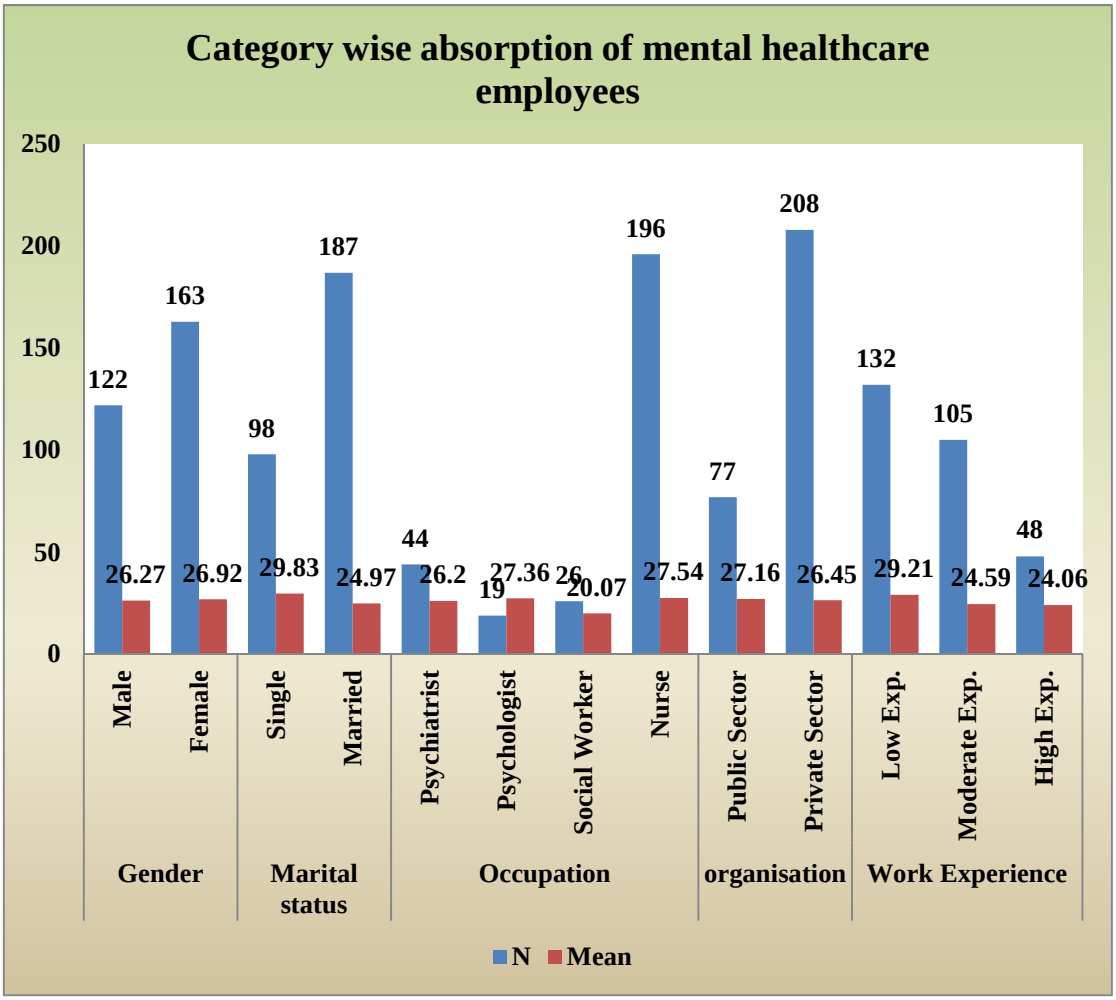


Fig 6.4: Category wise absorption of mental healthcare employees

In gender category both male (M = 26.27, SD = 4.33) and female (M = 26.92, SD = 4.40) employees showed a medium level of absorption with approximately equal scores. Unmarried single employees (M = 29.83, SD = 4.16) were found to be highly absorbed in work than married employees (M = 24.97, SD = 3.48). Employees in all occupational designations showed a medium level of absorptions where psychologists (M = 27.36, SD = 4.36) and nurses (M = 27.54, SD = 3.83) scored higher than social workers (M = 20.07, SD = 4.33) and psychiatrists (M = 26.20, SD = 3.38). Employees in public sector (M = 27.16, SD = 5.11) scored little higher than private sector employees (M = 26.45, SD = 4.07). In experience category low experienced employees (M = 29.21, SD = 3.86) possessed a high margin of absorption compared to highly experienced (M = 24.06, SD = 4.11) and

moderately experienced employees (M = 24.59, SD = 3.20). Among all categories unmarried employees scored the highest and social workers scored the lowest (table 6.29 and Fig 6.4).

6.6.2 Comparisons of Absorption Based on Demographics:

The mean scores of absorption of mental healthcare employees were evaluated and compared based on their demographic factors explored in the study. These demographic factors include gender, marital status, occupational status, organisation and work experience. Statistical tests like T test, ANOVA and Post Hoc tests were used to test the hypotheses.

Gender based comparison:

The differences in absorption scores of male and female employees were explored. Results indicated that both male (M = 26.27, SD = 4.33) and female (M = 26.92, SD = 4.40) employees possessed a medium level of absorption where female employees scored little more than male employees. T test was used to assess the significance of difference in absorption of males and females. Test results (table 6.30) indicated that the difference in mean score of absorption based on gender was not statistically significant as the p value is >0.5. The difference based on gender was mere of chance, t (283) = 1.224, p = 0.222.

Table 6.30

Comparison of Absorption Based on Gender

Gender	N	Mean	SD	t value	p value
Male	122	26.27	4.33	1.224	0.222
Female	163	26.92	4.40		

Source: Survey data

Marital Status based comparison:

The differences in absorption of single and married employees were examined. Unmarried single employees (M = 29.83, SD = 4.16) scored a higher level of absorption compared to married employees (M = 24.97, SD = 3.48).

Unmarried employees scored a higher margin of absorption dimension of work engagement while married employees scored a medium level. Further T test was adopted to evaluate the significance of difference in absorption of single and married employees. The test statistics (table 6.31) indicated that difference in absorption scores of mental healthcare employees based on marital status is significantly different. The null hypothesis was rejected as the p value is less than 0.05 and statistically significant difference was established; t (283) = 13.142, p = <0.001.

Table 6.31

Comparison of Absorption Based on Marital Status

Marital Status	N	Mean	SD	t value	p value
Single	98	29.83	4.16	13.142	.000
Married	187	24.97	3.48		

Source: Survey data

Organisational sector based comparison:

T test was adopted to assess the significance of differences in absorption of mental healthcare employees based on the organisational sector they work. Employees from public sector (M = 4.58, SD = 0.79) possessed a higher level of absorption compared to private sector employees (M = 4.54, SD = 0.58). Results showed that absorption in both private and public sector is at medium level. T test results (table 6.32) revealed that the difference in absorption of employees from private and public sector was not statistically significant. As the p value is greater than 0.05 null hypothesis was not rejected; t (283) = 1.227, p = 0. 221.

Table 6.32

Comparison of Absorption Based on Organisational Sector

Organisational Sector	N	Mean	SD	t value	p value
Public Sector	77	27.16	5.11	1.227	0.221
Private Sector	208	26.45	4.07		

Source: Survey data

Designation based comparison:

The absorption of mental healthcare employees was analysed based on their occupational designations. One way ANOVA was used to investigate the significance of differences in absorption of employees with different designations.

Table 6.33

Comparison of Absorption Based on Designation

Designation	N	Mean	SD	F value	p value
Psychiatrist	44	26.20	3.38	29.281	.000
Psychologist	19	27.36	4.36		
Social Worker	26	20.07	4.33		
Nurse	196	27.54	3.83		

Source: Survey data

As per one way ANOVA results (table 6.33) mental healthcare employees were found to be significantly different in absorption dimension of work engagement based on designations. The difference in mean score was found to be significant as the p value was less than 0.05 ($F(3, 281) = 29.281$, $p = <0.001$). Null hypothesis was rejected to establish a statistically significant difference among psychiatrists, psychologists, social workers and nurses in mental health sector. For precise analysis of the differences and finding the cause of difference in means scores Post hoc comparisons were conducted using the Tukey HSD test.

Table 6.34

Comparison of Absorption Based on Designation, Post Hoc Tests

Occupational Status (I)	Occupational Status (J)	Mean Difference (I-J)	Std. Error	Sig.
Psychiatrist	Psychologist	-1.16388	1.05573	.688
	Social worker	6.12762*	.95131	.000**
	Nurse	-1.34137	.64156	.159

Occupational Status (I)	Occupational Status (J)	Mean Difference (I-J)	Std. Error	Sig.
Psychologist	Psychiatrist	1.16388	1.05573	.688
	Social worker	7.29150*	1.16072	.000**
	Nurse	-.17750	.92406	.997
Social worker	Psychiatrist	-6.12762*	.95131	.000**
	Psychologist	-7.29150*	1.16072	.000**
	Nurse	-7.46900*	.80269	.000**
Nurse	Psychiatrist	1.34137	.64156	.159
	Psychologist	.17750	.92406	.997
	Social worker	7.46900*	.80269	.000**
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post Hoc test results as shown in table 6.34 revealed that the absorption level of employees with different designations is significantly different. The absorption level of social workers (M = 20.07, SD = 4.33, p = <0.001) was found to be significantly different from that of psychologists (M = 27.36, SD = 4.36), psychiatrists (M = 26.20, SD = 3.38) and nurses (M = 27.54, SD = 3.83). Post Hoc tests couldn't reveal any statistically significant difference among the absorption levels of psychiatrists, psychologists and nurses. Among all employee designations nurses and psychologists scored highly in absorption dimension while social workers scored lowest. The scores for all employees were at a moderate level.

Work Experience based comparison:

The difference in absorption of mental healthcare employees was examined based on their work experience. One way ANOVA was conducted to examine the significance of mean differences in absorption of mental healthcare employees based on their work experience in their respective organisations. Employees were classified in to three categories as low experienced, moderately experienced and highly experienced.

Table 6.35

Comparison of Absorption Based on Work Experience

Work Experience	N	Mean	SD	F value	p value
Low Experienced	132	29.21	3.86	60.524	.000
Moderately Experienced	105	24.59	3.20		
Highly Experienced	48	24.06	4.11		

Source: Survey data

As per one way ANOVA results (table 6.35) mental healthcare employees were found to be significantly different in absorption dimension of work engagement based on their experience. The difference in mean score was found to be significant as the p value was less than 0.05 (F (2, 282) = 60.524, p = <0.001). Null hypothesis was rejected to establish a statistically significant difference among highly, moderately and low experienced mental healthcare employees. For precise analysis of the differences and finding the cause of difference in means scores Post hoc comparisons were conducted using the Tukey HSD test.

Table 6.36

Comparison of Absorption Based on Work Experience, Post Hoc Tests

Work Experience (I)	Work Experience (J)	Mean Difference (I-J)	Std. Error	Sig.
Low Experienced	Moderately Experienced	4.62922*	.48108	.000**
	Highly Experienced	5.15720*	.62009	.000**
Moderately Experienced	Low Experienced	-4.62922*	.48108	.000**
	Highly Experienced	.52798	.64100	.689
Highly Experienced	Low Experienced	-5.15720*	.62009	.000**
	Moderately Experienced	-.52798	.64100	.689
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post hoc results (6.36) revealed that the absorption level of low experienced employees is significantly different from the absorption scores of the highly and moderately experienced employees. Null hypotheses were rejected as the p value was less than 0.05. Low experienced mental healthcare employees (M = 29.21 SD = 3.86) scored highly in absorption subscale of work engagement than highly experienced employees (M = 24.06 SD = 4.11) and moderately experienced employees (M = 24.59 SD = 3.20). Employees in all three experience categories possessed a medium level of absorption. Among three experience categories low experienced employees scored the highest score in absorption subscale and highly experienced employees scored the lowest score. The difference between both scores was statistically significant as per Post Hoc test results.

6.7 Section E: Work engagement of Mental Healthcare Employees

This section analyses the overall work engagement level of mental healthcare employees in Kerala. The scores of three dimensions of work engagement namely, vigor, dedication and absorption were calculated and summed up to find out the total work engagement of the mental health employees. Work engagement is the opposite pole of burnout. It refers to "a positive, fulfilling, work related psychological state that is characterised by vigor, dedication and absorption" (Schaufeli et al., 2002). Work engagement is believed to support employees' stability and increase the quality of service they render. Work engaged mental healthcare employees can report better quality of patient care in psychiatric hospitals. Generally the engaged employees tend to be more satisfied with their jobs and are more willing to stay in their positions. They have a lot of energy, enthusiasm about jobs and absorption in the work done.

The work engagement level of mental healthcare employees in Kerala was assessed by calculating the scores obtained in three subscales of work engagement scale namely; vigor subscale, dedication subscale and absorption subscale. The analysis of data clearly indicated that mental healthcare employees in Kerala (n= 285) are in medium level of work engagement. The mean score for work engagement of employees was found to be 78.69 with a standard deviation of 6.81

(table 6.37). The mean score revealed that mental healthcare employees in Kerala are moderately engaged in their work.

Table 6.37

Work Engagement of Mental Healthcare Employees

Work Engagement of mental healthcare employees					
Dimension	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
WE	285	57.00	96.00	78.69	6.81
Valid N (listwise)	285				

Source: Survey data

6.7.1 Category wise Work Engagement of Mental Healthcare Employees

Work engagement of mental healthcare employees in each category was calculated separately based on the mean score value of work engagement dimension as shown in table 6.38 and Fig 6.5.

Table 6.38

Category Wise Work Engagement of Mental Healthcare Employees

Category	Status	N	Mean	SD
Gender	Male	122	80.29	6.63
	Female	163	78.25	6.92
Marital status	Single	98	85.08	5.13
	Married	187	75.35	4.93
Occupation	Psychiatrist	44	76.84	7.99
	Psychologist	19	82.00	7.95
	Social Worker	26	75.84	7.03
	Nurse	196	79.17	6.17
Organisation	Public Sector	77	77.93	5.41
	Private Sector	208	81.08	7.25
Work Experience	Low experienced	132	83.12	6.25
	Moderately experienced	105	75.64	3.91
	High experienced	48	73.18	5.51

Source: Survey data

The scores given in the table revealed that all employee categories other than unmarried mental healthcare employees possessed a medium level of work engagement. In gender category male employees (M = 89.29, SD = 6.63) were found to be highly engaged than female employees (M = 78.25, SD = 6.92). Unmarried single employees (M = 85.08, SD = 5.13) scored high level in work engagement scale while married employees (M = 75.35, SD = 4.93) scored a medium level. In occupation category psychologists (M = 82.00, SD = 7.95) were found to be highly work engaged than nurses (M = 79.17, SD = 6.17), psychiatrists (M = 76.84, SD = 7.99) and social workers (M = 75.84, SD = 7.03). In the category of organisation both private (M = 81.08, SD = 7.25) and public sector employees (M = 77.93, SD = 5.41) scored a medium level of work engagement score. In the experience category low experienced employees (M = 83.12, SD = 6.25) could score a higher level of work engagement score compared with moderately experienced (M = 75.64, SD = 3.91) and highly experienced employees (M = 73.18, SD = 5.51). Among all categories unmarried employees scored highest and highly experienced employees scored the lowest (6.38)

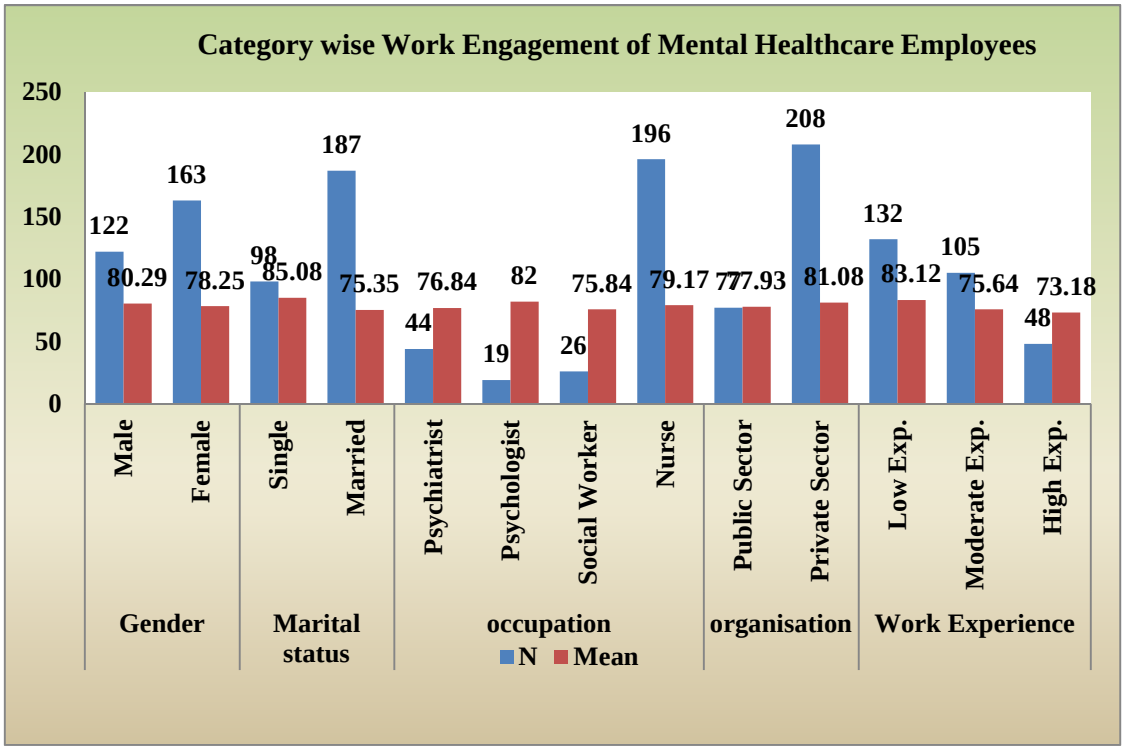


Fig 6.5: Category wise Work Engagement of Mental Healthcare Employees

6.7.2 Comparisons of Work engagement Based on Demographics:

The work engagement (WE) of mental healthcare employees was compared based on their demographic factors explored in the study. These demographic factors include gender, marital status, occupational status, organisation and work experience. Statistical tests like T test, ANOVA and Post Hoc tests were used to test the hypotheses.

Gender based comparison:

The differences in work engagement of male and female employees were explored. Male employees were found to be highly work engaged (M = 80.29, SD = 6.63) than their female counterparts (M = 78.25, SD = 6.92). Male employees possessed a higher level work engagement compared to female employees where both scored a medium level. T test was used to assess the significance of difference in work engagement of males and females. Test results (table 6.39) indicated that the difference in mean score of work engagement based on gender was statistically significant and null hypothesis was rejected as the p value is <0.5. Test results concluded that the differences in work engagement of mental healthcare employees based on gender is very significant statistically; t (283) = 4.350, p = 0.003. The previous literature in relation to the gender and work engagement is volatile. Some studies reported higher work engagement for male employees while other reported higher engagement for female employees. Significant difference between gender and work engagement was observed in some studies while weak and ambiguous relationship was observed in some other studies. Mostert and Rothmann (2006) and Coetzee and Rothmann (2005) found that the relationship between gender and work engagement is insignificant in educational and police services. Consistently with the present findings Ugwu (2013) reported higher levels of work engagement among male employees than female ones in Nigerian sample. Contrary to the present results many studies observed that female employees have a higher level of work engagement than male counterparts (Avery, McKay, & Wilson, 2007; Coetzee & de Villiers, 2010; Mauno, Kinnunen, Makikangas, & Natti, 2005; Rothbard, 2001)

Table 6.39

Comparison of Work Engagement Based on Gender

Gender	N	Mean	SD	t value	p value
Male	122	80.29	6.63	4.350	.003
Female	163	78.25	6.92		

Source: Survey data

Marital Status based comparison:

The differences in work engagement of both single and married employees were examined. Unmarried single employees were found to be highly work engaged than married employees. Unmarried employees scored a high level of work engagement (M = 85.08, SD = 5.13) while married employees scored a medium level (M = 75.35, SD = 4.93). Further T test was adopted to evaluate the significance of difference in work engagement of single and married employees. The test statistics (table 6.40) indicated that work engagement of unmarried employees in mental healthcare is significantly different from that of married employees and null hypothesis was rejected as the p value is greater than 0.05; t (283) = 12.461, p = <0.001. The present result is consistent with the finding of Kong (2009) who reported significantly higher levels work engagement including vigour, absorption and dedication among unmarried single employees compared to married employees. The findings of Takawira (2012) opposed this view as he found higher levels of vigour among married people than among unmarried single employees

Table 6.40

Comparison of Work Engagement Based on Marital Status

Marital Status	N	Mean	SD	t value	p value
Single	98	85.08	5.13	12.461	.000
Married	187	75.35	4.93		

Source: Survey data

Organisational sector based comparison:

The work engagement level of mental healthcare employees from both public and private sectors was evaluated to find out whether there existed any difference based on organisational sector. T test was adopted to assess the significance of differences in work engagement level based on their organisational sector. The test results (table 6.41) revealed that work engagement of private sector employees (M = 81.08, SD = 7.25) is significantly different from work engagement level of public sector employees (M = 77.93, SD = 5.41). Employees from private institutions were found to be highly engaged in their works than public sector employees. Employees from both sectors were found to possess a medium level of work engagement. Null hypothesis was rejected as the p value was less than 0.05 and significance difference was established; t (283) = -4.004, p = 0.002. In a previous literature work engagement level of government organisations was found to be considerably low compared to high - tech and service - focused private organisations (Business World, 2008). On other hand Scottish executive (2007), couldn't report any significant difference in the dynamics of employee engagement between public and private sector employees.

Table 6.41

Comparison of Work Engagement Based on Organisational Sector

Organisational Sector	N	Mean	SD	t value	p value
Public Sector	77	77.93	5.41	4.004	.002
Private Sector	208	81.08	7.25		

Source: Survey data

Designation based comparison:

The work engagement of mental healthcare employees was analysed based on their occupational designations. The mean scores for work engagement scale revealed that psychologists followed by nurses are highly engaged in their works. Psychiatrists and social workers scored less than psychologists and nurses. Employees in all designations were at a medium level of work engagement. One

way ANOVA was used to investigate the significance of differences in work engagement of employees with different designations. Null hypothesis was rejected as the p value was less than 0.05. One way ANOVA results (table 6.42) showed that difference in work engagement skill of mental healthcare employees based on occupational designations was statistically significant at 0.05 level of significance; F (3, 281) = 4.583, p = 0.004.

Table 6.42

Comparison of Work Engagement Based on Designation

Designation	N	Mean	SD	F value	p value
Psychiatrist	44	76.84	7.99	4.583	0.004
Psychologist	19	82.00	7.95		
Social Worker	26	75.84	7.03		
Nurse	196	79.17	6.17		

Source: Survey data

For getting a clear picture of difference and understanding who caused for difference a Post hoc comparison was conducted using the Tukey HSD test.

Table 6.43

Comparison of Work Engagement Based on Designation, Post Hoc Tests

Occupational Status (I)	Occupational Status (J)	Mean Difference (I-J)	Std. Error	Sig.
psychiatrist	psychologist	-5.15909*	1.83541	.027**
	social worker	.99476	1.65387	.932
	nurse	-2.33256	1.11536	.158
psychologist	psychiatrist	5.15909*	1.83541	.027**
	social worker	6.15385*	2.01794	.013**
	nurse	2.82653	1.60650	.295
social worker	psychiatrist	-.99476	1.65387	.932
	psychologist	-6.15385*	2.01794	.013**
	nurse	-3.32732	1.39549	.082

Occupational Status (I)	Occupational Status (J)	Mean Difference (I-J)	Std. Error	Sig.
nurse	psychiatrist	2.33256	1.11536	.158
	psychologist	-2.82653	1.60650	.295
	social worker	3.32732	1.39549	.082
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post hoc results as shown in table 6.43 indicated that work engagement level of psychologists (M = 4.83, SD = 0.37, p = <0.05) is significantly different from work engagement levels of psychiatrists (M = 4.56, SD = 0.42) and social workers (M = 4.61, SD = 0.33). As the p value is less than 0.05 the difference was found to be significant and null hypothesis was rejected. Psychologists scored highest in work engagement scale and social workers scored the lowest. Post hoc test couldn't reveal any significant difference in the scores of psychiatrists, social workers and nurses as well as psychologists and nurses.

Work Experience based comparison:

The difference in work engagement level of mental healthcare employees was examined based on their work experience. One way ANOVA was conducted to examine the significance of mean differences in work engagement levels of mental healthcare employees based on their work experience in their respective organisations. Employees were classified in to three categories as low experienced, moderately experienced and highly experienced.

Table 6.44

Comparison of Work Engagement Based on Work Experience

Work Experience	N	Mean	SD	F value	p value
Low Experienced	132	83.12	6.25	86.951	.000
Moderately Experienced	105	75.64	3.91		
Highly Experienced	48	73.18	5.51		

Source: Survey data

As per one way ANOVA results (table 6.44) mental healthcare employees were found to be significantly different in work engagement skill based on their experience. The difference in mean score was found to be significant as the p value was less than 0.05 (F (2, 282) = 86.951, p = <0.001). Null hypothesis was rejected to establish a statistically significant difference among highly, moderately and low experienced mental healthcare employees. For precise analysis of the differences and understanding clearly the cause for difference in means scores Post hoc comparisons were conducted using the Tukey HSD test.

Table 6.45

Comparison of Work Engagement Based on Work Experience, Post Hoc Tests

Work Experience (I)	**Work Experience (J)**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**
Low Experienced	Moderately Experienced	7.48117*	.70299	.000**
	Highly Experienced	9.94129*	.90612	.000**
Moderately Experienced	Low Experienced	-7.48117*	.70299	.000**
	Highly Experienced	2.46012*	.93667	.025**
Highly Experienced	Low Experienced	-9.94129*	.90612	.000**
	Moderately Experienced	-2.46012*	.93667	.025**
*The mean difference is significant at the 0.05 level ** reject (Ho)				

Source: Survey data

The Tukey Post hoc results (6.45) revealed that the work engagement levels employees in three experience categories are significantly different each other. Low experienced mental healthcare employees (M = 4.84, SD = 0.36, p = <0.05) scored a higher level of work engagement compared to moderately and highly experienced employees. Highly experienced employees were found to score the lowest among three categories. Null hypothesis was rejected and statistically significant difference was established as the p value was less than 0.05. Employees in all three experience

categories showed a medium level of work engagement. The present results are clearly indicated in many previous studies where an inverse relationship was established between experience (tenure) and work engagement (Avery et al, 2007; Buckingham, 2001; Robinson et al., 2004). In a study Coetzee and Rothmann (2005) found that employees with less than 5 years of work experience scored significantly higher on vigor dimension of engagement as compared to employees with more than 10 years of experience. Avery et al. (2007) obsereved that highly experienced employees are less engaged than low experienced employees.

6.8 Summarised Results of Hypotheses Tested

The summary of hypotheses formulated and tested, its p values and results are given in the table 6.46.

Table 6.46

Summarised Results of Hypotheses

S. No.	Hypotheses	Test	P Value	Results
1	There is no significant difference in vigor of mental health employees based on gender	Independent Samples T Test	<0.001	H_0 Rejected
2	There is no significant difference in vigor of mental health employees based on marital status	Independent Samples T Test	<0.001	H_0 Rejected
3	There is no significant difference in vigor of mental health employees based on organisational sector	Independent Samples T Test	<0.001	H_0 Rejected
4	There is no significant difference in vigor of mental health employees based on designation	One Way ANOVA	<0.001	H_0 Rejected
5	There is no significant difference in vigor of mental health employees based on experience	One Way ANOVA	<0.001	H_0 Rejected
6	There is no significant difference in dedication of mental health employees based on gender	Independent Samples T Test	0.061	H_0 Not Rejected
7	There is no significant difference in dedication of mental health employees based on marital status	Independent Samples T Test	<0.001	H_0 Rejected

S. No.	Hypotheses	Test	P Value	Results
8	There is no significant difference in dedication of mental health employees based on organisational sector	Independent Samples T Test	0.982	H_0 Not Rejected
9	There is no significant difference in dedication of mental health employees based on designation	One Way ANOVA	0.841	H_0 Not Rejected
10	There is no significant difference in dedication of mental health employees based on experience	One Way ANOVA	<0.001	H_0 Rejected
11	There is no significant difference in absorption of mental health employees based on gender	Independent Samples T Test	0.988	H_0 Not Rejected
12	There is no significant difference in absorption of mental health employees based on marital status	Independent Samples T Test	<0.001	H_0 Rejected
13	There is no significant difference in absorption of mental health employees based on organisational sector	Independent Samples T Test	0.704	H_0 Not Rejected
14	There is no significant difference in absorption of mental health employees based on designation	One Way ANOVA	0.212	H_0 Not Rejected
15	There is no significant difference in absorption of mental health employees based on experience	One Way ANOVA	<0.001	H_0 Rejected
16	There is no significant difference in work engagement of mental health employees based on gender	Independent Samples T Test	<0.001	H_0 Rejected
17	There is no significant difference in work engagement of mental health employees based on marital status	Independent Samples T Test	<0.001	H_0 Rejected
18	There is no significant difference in work engagement of mental health employees based on organisational sector	Independent Samples T Test	<0.001	H_0 Rejected
19	There is no significant difference in work engagement of mental health employees based on designation	One Way ANOVA	0.005	H_0 Rejected
20	There is no significant difference in work engagement of mental health employees based on experience	One Way ANOVA	<0.001	H_0 Rejected

Source: Survey data

Reference

Avery, D. R., McKay, P. F., & Wilson, D. C. (2007). Engaging the aging workforce: The relationship between perceived age similarity, satisfaction with coworkers, and employee engagement. *Journal of Applied Psychology*, 92(6), 1542–1556.

Baumgartner, H. & Homburg, C. (1996), Applications of structural modeling in marketing and consumer research: A review, *International Journal of Research in Marketing*, 13, 139 - 161.

Buckingham, M. (2001, October). What a waste. *People Management*, 11, 36–39.

Business World. (2008, May). HR special survey: Engage the employee, 32 - 35.

Chou, C. P., & Bentler, P. M. (1995). Estimates and tests in structural equation modeling. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications*, 37 - 55, Thousand Oaks: Sage Publications.

Coetzee, M., & de Villiers, M. (2010). Sources of job stress, work engagement and career orientations of employees in a South African financial institution. *Southern African Business Review*, 14(1), 27–57.

Coetzee, S. E., & Rothmann, S. (2005). Work engagement of employees at a higher education institution in South Africa. *Southern African Business Review*, 9(3), 23–34.

Daus, C. S., & Ashkanasy, N. M. (2005). The case for the ability - based model of emotional intelligence in organisational behaviour. *Journal of Organisational Behavior*, 26, 453 - 466.

Fornell, C. and Larcker, D. F. (1981) Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18, 39 - 50.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). Multivariate data analysis. *Upper Saddle River*, NJ: Prentice Hall.

Hulland, J. Chow, Y. H. & Lam, S. (1996) Use of casual models in marketing research: A review, *International Journal of Research in Marketing*, 13, 181 - 197.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33*(4), 692-724.

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36.

Kassim, N. M. (2001) *Determinants of customer satisfaction and retention in the cellular phone market of Malaysia,* PhD thesis, Southern Cross University, Lisbon.

Ketkar, S., Kock, N., Parente, R., & Verville, J. (2012). The impact of individualism on buyer - supplier relationship norms, trust and market performance: An analysis of data from Brazil and the U.S.A. *International Business Review*, 21(5), 782 - 793.

Kong, Y. (2009). A study on the job engagement of company employees. *International Journal of Psychological Services*, 1(2), 65–68.

Mauno, S., Kinnunen, U., Makikangas, A., & Natti, J. (2005). Psychological consequences of fixed-term employment and perceived job insecurity among health care staff. *European Journal of Work and Organisational Psychology*, 14(3), 209–237.

Mostert, K., & Rothmann, S. (2006). Work-related wellbeing in the South African police service. *Journal of Criminal Justice*, 34(5), 479 - 491.

Robinson, D., Perryman, S., & Hayday, S. (2004). *The drivers of employee engagement*. Brighton: Institute for Employment Studies.

Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly*, 46(4), 655–684.

Schaufeli, W. B., Salanova, M., Gonzalez - Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies, 3,* 71-92.

Scottish Executive Social Research. (2007). *Employee engagement in the public sector: A review of literature*. Edinburgh.

Tabachnick, B. G. and Fidell, L. S. (2001) *Using Multivariate Statistics*. 4th Edition, Allyn and Bacon, Boston.

Takawira, N. (2012). *Job embeddedness, work engagement and turnover intention of staff in a higher education institution*. Unpublished master's dissertation, University of South Africa, Pretoria.

Ugwu, F. O. (2013). Work Engagement In Nigeria: Adaptation of Utrecht Work Engagement Scale for Nigerian Samples. *International Journal of Multidisciplinary Academic Research* 1(3).

CHAPTER 7

INTER LINKAGES AMONG EMOTIONAL INTELLIGENCE, ORGANISATIONAL COMMITMENT AND WORK ENGAGEMENT

Contents **Page No.**

7.1 Introduction

The inter linkages and interrelationships among emotional Intelligence, organisational commitment and work engagement of mental healthcare employees is evaluated and analysed in this chapter. Emotional intelligence is the ability of an employee to understand and discriminate the different emotions in self and others that helps in monitoring, regulating and controlling the various emotional situations at workplace. Organisational commitment refers to the psychological attachment or belongingness of an employee to his organisation based on affection, cost of leaving or norms of the organisation. Work engagement is considered as the antipode of burnout that develops in employees a state of mind characterised by vigor, dedication and absorption. These are three unique and distinct emerging constructs widely discussed and conceptualised in human resource management practices. It has prominent role and impact in enhancing and utilising the available human resource talents at an optimum level and ensuring a good organisational behaviour.

There are significant body of research and literature that examine the positive and negative correlations among these constructs in various organisational settings along with its relationships with several organisational outcomes. Recently there is growing interest in the role of these constructs for the successful delivery of healthcare services. These constructs are strongly believed to support many work outcomes in healthcare sector particularly related with healthcare workforce stability and quality of care. Emotional intelligence, commitment and engagement of any healthcare employee have a crucial bearing on the quality of care and service they offer to the patients. Research studies conducted in healthcare sectors of foreign countries mainly related with nursing profession have successfully established significant positive relationships among these constructs and have forwarded many practical implications for all stake holders in healthcare sector. In Indian scenario studies relating the constructs to the Indiana healthcare system particularly mental healthcare setting are very less and meagre.

This work is considered as a sincere attempt to evaluate and examine the positive and negative inter linkages or correlations among emotional intelligence,

organisational commitment and work engagement of mental healthcare employees in Kerala that will result in establishing a meaningful linkage between these constructs and organisational outcomes in mental healthcare sector. No research was found investigating the relationship among emotional intelligence, organisational commitment and work engagement of mental healthcare employees in India and the finding of this study can fill this gap.

The demographic effects of the study variables were examined in the previous chapters and this chapter strictly focus on identifying the interrelationships among the study variables. This part that deals with inter linkages between the study variables can be considered as the heart of this research work as it focus on main theme of the study and attempt to answer the very important research questions. The fourth and fifth objectives of the study i.e. examining the effect of emotional intelligence on organisational commitment and work engagement of mental healthcare employees in Kerala and evaluating the inter-linkages among emotional intelligence, organisational commitment and work engagement of mental healthcare employees are analysed in this chapter. The chapter examines and assesses the inter linkages among the study variables based on the survey data to answer the prominent research questions:

- What effect Emotional Intelligence has on Organisational Commitment of mental healthcare employees in Kerala?
- What effect Emotional Intelligence has on Work Engagement of mental healthcare employees in Kerala?
- What are the inter-linkages among Emotional Intelligence, Organisational Commitment and Work Engagement of mental healthcare employees in Kerala?

The data for the study was collected from mental healthcare employees working in mental healthcare institutions of Kerala both from public and private sectors. The employees selected for the study comprise psychiatrists, psychologists, social workers and nurses working in public and private mental healthcare

institutions. In public sector, employees were selected from three government mental health centres at Thiruvananthapuram, Thrissur and Kozhikode. In private sector employees were selected from twenty two private mental healthcare institutions listed and licensed by Kerala State Mental Health Authority (KSMHA). The sample unit was employees from mental healthcare sector of Kerala which included doctors and nurses from both public and private sectors.

The instruments used to measure the study variables are Wong and Law Emotional Intelligence Scale (WLEIS), Three Component Model (TCM) Employee Commitment Survey and Utrecht Work Engagement Scale (UWES). These are three well known conceptually established self rating scales widely used throughout the world for academic and non academic purposes to assess emotional intelligence, organisational commitment and work engagement. Emotional intelligence is measured under four major constructs namely, Self Emotion Appraisal (SEA), Others Emotion Appraisal (OEA), Use of Emotion (UOE) and Regulation of Emotion (ROE). TCM Employee Commitment Survey measures three forms of employee commitment namely affective commitment (desire-based), continuance commitment (obligation-based) and normative commitment (cost-based). Work engagement is assessed under three components as vigor, dedication and absorption. The scales were used after getting prior permission and were validated by conducting exploratory and confirmatory factor analyses using SPSS and Amos software packages.

The tools used in this chapter for analysis and interpretation of the data are Spearman's Rank-Order correlation coefficient, regression analysis and structural equation modelling. The interrelations among study variables were examined by the means of correlation, the effect of study variables on each other and the moderation effect of variable were examined by the means of structural equation modelling. Based on the major topics analysed and evaluated the chapter is divided into three sections for easy understanding of the interpreted data. These three sections include:

- Section A: Analysis of Relationships
- Section B: Analysis of Effects
- Section C: Analysis of Mediation Effects

7.2 Demographic Profile of the Respondents

Out of the 285 respondents 122 respondents are males and 163 respondents are females. 57% of the respondents are married and 34% are single. Respondents are consisted of different occupational status as nurse (196), psychiatrists (44), psychologists (19) and social worker (26). Respondents from private institutions occupy 73% and 77 respondents belongs to public sector. Based on experience respondents are divided into three categories as low experienced (132), medium experienced (105) and high experienced (48) (Table 4.2).

Table 7.1

Demographic Profile of Respondents

Category	Status	Frequency	Percent	Total
Gender	Male	122	42	285
	Female	163	57	
Marital status	Single	98	34	285
	Married	187	65	
Occupation	Nurse	196	68	285
	Psychiatrist	44	15	
	Psychologist	19	6	
	Social Worker	26	9	
Organisation	Public Sector	77	27	285
	Private Sector	208	73	
Work Experience	Low experienced	132	46	285
	Moderately experienced	105	36	
	Highly experienced	48	16	

Source: Survey Data

7.3 Section A: Analysis of Relationships

This section fulfils a major objective of the study i.e. evaluating the inter-linkages among Emotional Intelligence and selected HR outcomes (Organisational Commitment and Work Engagement) of mental healthcare employees in Kerala by analysing the correlations between emotional intelligence, organisational commitment and work engagement of mental healthcare employees in Kerala. In any study the relationships between variables is best analysed statistically through the use of correlation analysis (Newton & Rudestam, 1999).

Based on the assumptions that data collected through three rating scales are interval data and the variables have a normal distribution, the Pearson Product - Moment Correlation was selected for analysis of data. Correlation analysis was used to evaluate and determine the strength of the relationship between emotional intelligence, organisational commitment and work engagement. The coefficient of correlation measures the relative strength of a linear relationship between two numeric variables (Levine et. al, 2008). The values range from -1 for a perfect negative relation to +1 for a perfect positive relationship with 0 representing a lack of association or relationship. It is important to remember that correlation analysis deals with the association between two or more variables and cannot prove a causation effect. Additional analysis is required to establish cause and effect relationship. The following null hypotheses were tested in this section:

- There is no significant relationship between emotional intelligence and organisational commitment of mental healthcare employees.
- There is no significant relationship between emotional intelligence and work engagement of mental healthcare employees.
- There is no significant relationship between organisational commitment and work engagement of mental healthcare employees.

7.3.1 Emotional Intelligence and Organisational Commitment

Emotional Intelligence is the ability to appraise, monitor and identify the different kinds of emotions in self and others. Organisational Commitment refers the

emotional attachment of employees to an organisation. Several studies have been conducted globally to examine the correlation between these two emerging constructs that are considered vital in HR policy formulations. However no more studies were found examining the relationships of these constructs in mental healthcare sector. The correlation between emotional intelligence and organisational commitment of mental healthcare employees was analysed with means of Pearson Product - Moment Correlation in SPSS. The linkages of emotional intelligence and its four components with organisational commitment were examined separately.

Self Emotion Appraisal and Organisational Commitment

The correlations between Self Emotion Appraisal (SEA), the first component of emotional intelligence and organisational commitment along with its three components namely Affective Commitment (AC), Continuance Commitment (CC) and Normative Commitment (NC) were examined using Pearson Product - Moment Correlation as shown in table 7.2.

Table 7.2

Correlations between SEA and Organisational Commitment

Correlations SEA*OC Components						
Components		**SEA**	**AC**	**CC**	**NC**	**Overall OC**
SEA	Pearson Correlation	1	.398**	.359**	.034	.355**
	Sig. (2-tailed)		.000	.000	.570	.000
	N	285	285	285	285	285
AC	Pearson Correlation	.398**	1	.553**	.267**	.814**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	285	285	285	285	285
CC	Pearson Correlation	.359**	.553**	1	.363**	.829**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	285	285	285	285	285
NC	Pearson Correlation	.034	.267**	.363**	1	.670**
	Sig. (2-tailed)	.570	.000	.000		.000
	N	285	285	285	285	285

Correlations SEA*OC Components						
Components		**SEA**	**AC**	**CC**	**NC**	**Overall OC**
Overall OC	Pearson Correlation	.355**	.814**	.829**	.670**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	285	285	285	285	285
**. Correlation is significant at the 0.01 level (2-tailed).						

Source: Survey Data

Table 7.2 displays the correlations between Self Emotion Appraisal and Organisational Commitment along with its three components and correlations among Organisational Commitment and its three components namely AC, CC and NC. The results clearly indicate that SEA has significant positive correlation with overall OC (r = 0.355, p = <0.001) and its two components; AC (r = 0.398, p = <0.001) and CC (r = 0.359, p = <0.001). The correlation between SEA and NC component was found to be insignificant (r = 0.034, p = 0.570). SEA was highly correlated with AC compared to other two components of organisational commitment. The table further displays the correlations among Organisational Commitment and its three subcomponents namely AC, CC and NC. Results clearly indicated that the correlations among all subcomponents of organisational commitment are positive and significant where AC and CC was highly correlated (r = 0.553, p = <0.001) compared to other components. The three subcomponents, AC (r = 0.814, p = <0.001) CC (r = 0.829, p = <0.001) and NC (r = 0.670, p = <0.001) were found to be significantly and strongly correlated with overall organisational commitment.

Others' Emotion Appraisal and Organisational Commitment

The correlations between Others' Emotion Appraisal (OEA), the second component of emotional intelligence and organisational commitment along with its three components namely Affective Commitment (AC), Continuance Commitment (CC) and Normative Commitment (NC) were examined by the means of Pearson Product - Moment Correlation as shown in table 7.3.

Table 7.3

Correlations between OEA and Organisational Commitment

Correlations OEA*OC Components						
Components		**OEA**	**AC**	**CC**	**NC**	**Overall OC**
OEA	Pearson Correlation	1	.304**	.335**	.126*	.336**
	Sig. (2-tailed)		.000	.000	.033	.000
	N	285	285	285	285	285
AC	Pearson Correlation	.304**	1	.553**	.267**	.814**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	285	285	285	285	285
CC	Pearson Correlation	.335**	.553**	1	.363**	.829**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	285	285	285	285	285
NC	Pearson Correlation	.126*	.267**	.363**	1	.670**
	Sig. (2-tailed)	.033	.000	.000		.000
	N	285	285	285	285	285
Overall OC	Pearson Correlation	.336**	.814**	.829**	.670**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	285	285	285	285	285
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Source: Survey Data

Table 7.3 illustrates the correlations between Others' Emotion Appraisal and Organisational Commitment along with its three subcomponents. The results indicate that OEA is positively correlated with overall OC (r = 0.336, p = <0.001) and its three subcomponents; AC (r = 0.304, p = <0.001), CC (r = 0.335, p = <0.001) and NC (r = 0.126, p = 0.033). The correlations in all cases were found to be significant as p value is less than 0.05. OEA was highly correlated with CC compared to other components while the correlation between OEA and NC was found to be very weak.

Use of Emotion and Organisational Commitment

The correlations between Use of Emotion (UOE), the third component of emotional intelligence and organisational commitment along with its three components namely Affective Commitment (AC), Continuance Commitment (CC) and Normative Commitment (NC) were examined by the means of Pearson Product - Moment Correlation as illustrated in table 7.4.

Table 7.4

Correlations between UOE and Organisational Commitment

Correlations UOE*OC Components						
Components		**UOE**	**AC**	**CC**	**NC**	**Overall OC**
UOE	Pearson Correlation	1	.188**	.218**	.086	.216**
	Sig. (2-tailed)		.001	.000	.146	.000
	N	285	285	285	285	285
AC	Pearson Correlation	.188**	1	.553**	.267**	.814**
	Sig. (2-tailed)	.001		.000	.000	.000
	N	285	285	285	285	285
CC	Pearson Correlation	.218**	.553**	1	.363**	.829**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	285	285	285	285	285
NC	Pearson Correlation	.086	.267**	.363**	1	.670**
	Sig. (2-tailed)	.146	.000	.000		.000
	N	285	285	285	285	285
Overall OC	Pearson Correlation	.216**	.814**	.829**	.670**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	285	285	285	285	285
**. Correlation is significant at the 0.01 level (2-tailed).						

Source: Survey Data

Table 7.4 depicts the correlations between Use of Emotion (UOE) and Organisational Commitment along with its three subcomponents; AC, CC and NC. As per the results shown in table UOE is positively correlated with overall OC (r = 0.216, p = <0.001) and its two subcomponents; AC (r = 0.188, p = 0.001) and CC (r = 0.218, p = <0.001). The correlation of UOE with AC and CC was significant as p

value is less than 0.05 and the correlation between UOE and NC was found to be insignificant (r = 0.086, p = 0.146). UOE was highly correlated with CC compared to other components while the correlation between UOE and NC was found to be very low.

Regulation of Emotion and Organisational Commitment

The correlations between Regulation of Emotion (ROE), the fourth component of emotional intelligence and organisational commitment along with its three components namely Affective Commitment (AC), Continuance Commitment (CC) and Normative Commitment (NC) were examined by the means of Pearson Product - Moment Correlation as illustrated in table 7.5.

Table 7.5

Correlations between ROE and Organisational Commitment

Correlations ROE*OC Components						
Components		**ROE**	**AC**	**CC**	**NC**	**Overall OC**
ROE	Pearson Correlation	1	.298**	.348**	.143*	.345**
	Sig. (2-tailed)		.000	.000	.016	.000
	N	285	285	285	285	285
AC	Pearson Correlation	.298**	1	.553**	.267**	.814**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	285	285	285	285	285
CC	Pearson Correlation	.348**	.553**	1	.363**	.829**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	285	285	285	285	285
NC	Pearson Correlation	.143*	.267**	.363**	1	.670**
	Sig. (2-tailed)	.016	.000	.000		.000
	N	285	285	285	285	285
Overall OC	Pearson Correlation	.345**	.814**	.829**	.670**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	285	285	285	285	285
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Source: Survey Data

Table 7.5 displays the correlations between Regulation of Emotion (ROE) and Organisational Commitment. The results clearly indicate that Regulation of Emotion is positively correlated with overall Organisational Commitment (r = 0.345, p = <0.001). The table also shows the results of the correlation between ROE and OC components namely; AC (r = 0.298, p = <0.001), CC (r = 0.348, p = <0.001) and NC (r = 0. .143, p = <0.001). As per the results the correlation of ROE with AC, CC and NC was found to be significant as p value is less than 0.05. ROE was highly correlated with CC compared to other components while the correlation between ROE and NC was found to be weak.

Overall Emotional Intelligence and Organisational Commitment

The correlations between total Emotional Intelligence and organisational commitment along with its three components namely Affective Commitment (AC), Continuance Commitment (CC) and Normative Commitment (NC) were examined by the means of Pearson Product - Moment Correlation as illustrated in table 7.6.

Table 7.6

Correlations between Overall EI and Organisational Commitment

Correlations Overall EI*OC Components						
Components		**Overall EI**	**AC**	**CC**	**NC**	**Overall OC**
Overall EI	Pearson Correlation	1	.377**	.400**	.124*	.428**
	Sig. (2-tailed)		.000	.000	.036	.000
	N	285	285	285	285	285
AC	Pearson Correlation	.377**	1	.553**	.267**	.814**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	285	285	285	285	285
CC	Pearson Correlation	.400**	.553**	1	.363**	.829**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	285	285	285	285	285
NC	Pearson Correlation	.124*	.267**	.363**	1	.670**
	Sig. (2-tailed)	.036	.000	.000		.000
	N	285	285	285	285	285

Correlations Overall EI*OC Components						
Components		**Overall EI**	**AC**	**CC**	**NC**	**Overall OC**
Overall OC	Pearson Correlation	.398**	.814**	.829**	.670**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	285	285	285	285	285
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Source: Survey Data

The results of the correlations between Overall Emotional Intelligence and Organisational Commitment are shown in table 7.6. The results clearly indicate that Emotional Intelligence is positively correlated with Organisational Commitment (r = 0.428, p = <0.001). Correlation was found to be significant as the p value is less than 0.05. The table further provides the results of correlations between total EI and three OC subcomponents namely; AC, CC and NC. AC (r = 0.377, p = <0.001), CC (r = 0.400, p = <0.001) and NC (r = 0.124, p = 0.036) have a positive and significant correlation with overall EI. Total EI was highly correlated with CC followed by AC and NC where NC is weakly correlated with EI. Based on these results the null hypothesis 'There is no significant relationship between emotional intelligence and organisational commitment' was rejected and a positive relationship was established between emotional intelligence and organisational commitment.

The present results are consistent with many previous studies that established positive and significant relationship between emotional intelligence and organisational commitment. In past literature emotional intelligence is widely conceptualised as collateral for developing organisational commitment in organisations. In a study Wong and Law found that emotional intelligence has meaningful relationships with job outcomes as job satisfaction and organisational commitment (Wong and Law, 2002). Nikolaou and Tsaousis advocated that Individuals with high emotional intelligence are more committed to their organisations. They found positive correlations between emotional intelligence and organisational commitment and stated that emotional intelligence is a key factor in increasing organisational commitment (Nikolaou and Tsaousis, 2002). In another

study, Carmeli (2003) found that affective commitment had positive relationship with emotional intelligence. In fact, employees with high emotional intelligence had higher levels of affective commitment and attachment to organisation. The results of the study undertaken by Taboli, H. (2013) revealed that emotional intelligence is positively related with organisational commitment ($r = 0.25$, $p<0.01$). Abraham (2000) and Khalili (2011) also have found strong and significant relationship between emotional intelligence and organisational commitment.

7.3.2 Emotional Intelligence and Work Engagement

Emotional Intelligence is the ability to appraise, monitor and identify the different kinds of emotions in self and others. Work Engagement is the positive work related state of mind of an employee that is characterised by vigor, dedication and absorption. The study makes attempt to examine the correlation between these two emerging constructs in mental healthcare sector as these concepts are considered recently as crucial parts of HRM policies. The correlations between emotional intelligence and work engagement of mental healthcare employees was analysed with means of Pearson Product - Moment Correlation in SPSS. The linkages of emotional intelligence and its four components with work engagement were examined separately.

Self Emotion Appraisal and Work Engagement

The correlations between Self Emotion Appraisal (SEA), the first component of emotional intelligence and Work Engagement along with its three components namely Vigor, Dedication and Absorption were examined using Pearson Product - Moment Correlation as shown in table 7.7.

Table 7.7

Correlations between SEA and Work Engagement

Correlations SEA*WE Components						
		SEA	**VIG**	**DED**	**ABS**	**Overall WE**
SEA	Pearson Correlation	1	.240**	-.230**	.228**	.086
	Sig. (2-tailed)		.000	.000	.000	.146
	N	285	285	285	285	285
VIG	Pearson Correlation	.240**	1	.149*	.166**	.621**
	Sig. (2-tailed)	.000		.012	.005	.000
	N	285	285	285	285	285
DED	Pearson Correlation	-.230**	.149*	1	.057	.691**
	Sig. (2-tailed)	.000	.012		.336	.000
	N	285	285	285	285	285
ABS	Pearson Correlation	.228**	.166**	.057	1	.615**
	Sig. (2-tailed)	.000	.005	.336		.000
	N	285	285	285	285	285
Overall WE	Pearson Correlation	.086	.621**	.691**	.615**	1
	Sig. (2-tailed)	.146	.000	.000	.000	
	N	285	285	285	285	285
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Source: Survey Data

Table 7.7 displays the correlations between Self Emotion Appraisal and Work Engagement along with its three components and correlations among Work Engagement and its three components namely Vigor, Dedication and Absorption. The results clearly indicate that the correlation between SEA and overall WE is very weak and insignificant (r = 0.086, p = 0.146). SEA was found to be significantly positively correlated with vigor (r = 0.240, p = <0.001) and absorption (r = 0.228, p = <0.001) and significantly negatively correlated with dedication (r = -0.230, p = <0.001). The results of correlations among three subcomponents of work

engagement reveal that all variables namely vigor, dedication and absorption are positively correlated and correlation is significant in all cases other than dedication and absorption (r = 0.057, p = 0.336). Results further indicated that all three subcomponents, vigor (r = 0.621, p = <0.001) dedication (r = 0.691, p = <0.001) and absorption (r = 0.615, p = <0.001) are significantly and strongly correlated with overall work engagement.

Others' Emotion Appraisal and Work Engagement

The results of correlations between Others' Emotion Appraisal (OEA), the second component of emotional intelligence and Work Engagement along with its three subcomponents are illustrated in the following table 7.8.

Table 7.8

Correlations between OEA and Work Engagement

Correlations OEA*WE Components						
		OEA	**VIG**	**DED**	**ABS**	**Overall WE**
OEA	Pearson Correlation	1	.124*	-.147*	.165**	.051
	Sig. (2-tailed)		.037	.013	.005	.388
	N	285	285	285	285	285
VIG	Pearson Correlation	.124*	1	.149*	.166**	.621**
	Sig. (2-tailed)	.037		.012	.005	.000
	N	285	285	285	285	285
DED	Pearson Correlation	-.147*	.149*	1	.057	.691**
	Sig. (2-tailed)	.013	.012		.336	.000
	N	285	285	285	285	285
ABS	Pearson Correlation	.165**	.166**	.057	1	.615**
	Sig. (2-tailed)	.005	.005	.336		.000
	N	285	285	285	285	285
Overall WE	Pearson Correlation	.051	.621**	.691**	.615**	1
	Sig. (2-tailed)	.388	.000	.000	.000	
	N	285	285	285	285	285
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

Source: Survey Data

Table 7.8 illustrates the correlations between Others' Emotion Appraisal and Work Engagement along with its three subcomponents. The results indicate that the correlation between OEA and total work engagement is positive and insignificant (r = 0.0.51, p = 0.388). OEA has a weak positive correlation with vigor (r = 0.124, p = 0.037) and absorption (r = 0.165, p = 0.005) and negative significant correlation with dedication (r = -0.147, p = 0.013).

Use of Emotion and Work Engagement

The correlation analysis between Use of Emotion (UOE), the third component of emotional intelligence and Work Engagement along was conducted by the means of Pearson Product - Moment Correlation. The results are illustrated in table 7.9.

Table 7.9

Correlations between UOE and Work Engagement

Correlations UOE*WE Components						
		UOE	**VIG**	**DED**	**ABS**	**Overall WE**
UOE	Pearson Correlation	1	.241**	-.038	.055	.113
	Sig. (2-tailed)		.000	.522	.358	.057
	N	285	285	285	285	285
VIG	Pearson Correlation	.241**	1	.149*	.166**	.621**
	Sig. (2-tailed)	.000		.012	.005	.000
	N	285	285	285	285	285
DED	Pearson Correlation	-.038	.149*	1	.057	.691**
	Sig. (2-tailed)	.522	.012		.336	.000
	N	285	285	285	285	285
ABS	Pearson Correlation	.055	.166**	.057	1	.615**
	Sig. (2-tailed)	.358	.005	.336		.000
	N	285	285	285	285	285
Overall WE	Pearson Correlation	.113	.621**	.691**	.615**	1
	Sig. (2-tailed)	.057	.000	.000	.000	
	N	285	285	285	285	285
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Source: Survey Data

Table 7.9 depicts the results of correlations between Use of Emotion and Work Engagement along with its three subcomponents. As per the results the weak positive correlation between UOE and total work engagement is insignificant (r = 0.113, p = 0.057). The table reveals that the correlation of UOE with vigor (r = 0.241, p = <0.001) is positive and significant. The correlation between UOE and absorption (r = 0.055, p = 0.358) was found to be positive and insignificant and the correlation between UOE and dedication (r = -0.038, p = 0.522) to be negative and insignificant.

Regulation of Emotion and Work Engagement

The correlations between Regulation of Emotion (ROE), the fourth component of emotional intelligence and Work Engagement along with its three components were examined by the means of Pearson Product - Moment Correlation as illustrated in table 7.10.

Table 7.10

Correlations between ROE and Work Engagement

Correlations ROE*WE Components						
		ROE	**VIG**	**DED**	**ABS**	**Overall WE**
ROE	Pearson Correlation	1	.278**	-.066	.316**	.245**
	Sig. (2-tailed)		.000	.268	.000	.000
	N	285	285	285	285	285
VIG	Pearson Correlation	.278**	1	.149*	.166**	.621**
	Sig. (2-tailed)	.000		.012	.005	.000
	N	285	285	285	285	285
DED	Pearson Correlation	-.066	.149*	1	.057	.691**
	Sig. (2-tailed)	.268	.012		.336	.000
	N	285	285	285	285	285
ABS	Pearson Correlation	.316**	.166**	.057	1	.615**
	Sig. (2-tailed)	.000	.005	.336		.000
	N	285	285	285	285	285
Overall WE	Pearson Correlation	.245**	.621**	.691**	.615**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	285	285	285	285	285
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Source: Survey Data

Results shown in Table 7.10 reveal that the correlation between Regulation of Emotion (ROE) and Work Engagement (r = 0.245, p = <0.001) is positive and significant. As per the results ROE is positively correlated with two subcomponents, Vigor (r = 0.278, p = <0.001) and Absorption (r = 0.316, p = <0.001). The correlation is significant in both cases. ROE is found to be negatively correlated with dedication (r = -0.066, p = 0.268) where correlation is insignificant.

Overall Emotional Intelligence and Work Engagement

The correlations between total Emotional Intelligence and organisational commitment along with its three components namely Affective Commitment (AC), Continuance Commitment (CC) and Normative Commitment (NC) were examined by the means of Pearson Product - Moment Correlation as illustrated in table 7.11.

Table 7.11

Correlations between Overall EI and Work Engagement

Correlations Overall EI*WE Components						
		Overall EI	**VIG**	**DED**	**ABS**	**Overall WE**
Overall EI	Pearson Correlation	1	.263**	-.148*	.231**	.317*
	Sig. (2-tailed)		.000	.012	.000	.000
	N	285	285	285	285	285
VIG	Pearson Correlation	.263**	1	.149*	.166**	.621**
	Sig. (2-tailed)	.000		.012	.005	.000
	N	285	285	285	285	285
DED	Pearson Correlation	-.148*	.149*	1	.057	.691**
	Sig. (2-tailed)	.012	.012		.336	.000
	N	285	285	285	285	285
ABS	Pearson Correlation	.231**	.166**	.057	1	.615**
	Sig. (2-tailed)	.000	.005	.336		.000
	N	285	285	285	285	285
Overall WE	Pearson Correlation	.147*	.621**	.691**	.615**	1
	Sig. (2-tailed)	.013	.000	.000	.000	
	N	285	285	285	285	285
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Source: Survey Data

The results of the correlations between Overall Emotional Intelligence and Work Engagement are shown in table 7.11. The results clearly indicate that Emotional Intelligence is positively correlated with Work Engagement (r = 0.317, p = <0.001). Correlation was found to be very moderate and significant as the p value is less than 0.05. The table further provides the results of correlations between total EI and three subcomponents namely; vigor, dedication and absorption. Vigor (r = 0.263, p = <0.001) and absorption (r = 0.231, p = <0.001) have a positive and significant correlation with total EI while dedication (r = -0.148, p = 0.012) has a negative and significant correlation. EI was found to be highly correlated with vigor followed by absorption. Based on these results the null hypothesis 'There is no significant relationship between emotional intelligence and work engagement' was rejected and a positive relationship was established between emotional intelligence and organisational commitment.

The present study results are consistent with many previous findings that correlated emotional intelligence with work engagement. In a study Ravichandran, Arasu and Kumar (2011) found a significant linear relationship between overall emotional intelligence and overall work engagement behaviour. In another study Thor (2012) found a moderate relationship between emotional intelligence and work engagement. In a recent study Zhu Y, Liu C, et al. (2015) examined the impact of emotional intelligence on work engagement and found statistically significant correlations between emotional intelligence and work engagement (r = 0603, p < 0.001). All four sub dimensions of emotional intelligence were found to be positively correlated with work engagement. The findings of Garrosa et al. (2011), Nel et al. (2013) and Walker & Campbell (2013) also revealed the relationships between emotional intelligence and work engagement.

7.3.3 Organisational Commitment and Work Engagement

Organisational Commitment and Work Engagement are two major HR outcomes selected for this study. Many studies have examined the relationships between these two concepts and most of them concluded a positive and significant relationship between them. The correlations between emotional intelligence and

work engagement of mental healthcare employees was analysed in this study with means of Pearson Product - Moment Correlation in SPSS.

Affective Commitment and Work Engagement

The correlations between Affective Commitment (AC), the first component of organisational commitment and Work Engagement along with its three components namely Vigor, Dedication and Absorption were examined using Pearson Product - Moment Correlation as shown in table 7.12

Table 7.12

Correlations between Affective Commitment and Work Engagement

Correlations AC*WE Components						
		AC	**VIG**	**DED**	**ABS**	**Overall WE**
AC	Pearson Correlation	1	.178**	.011	.013	.074
	Sig. (2-tailed)		.003	.853	.823	.211
	N	285	285	285	285	285
VIG	Pearson Correlation	.178**	1	.149*	.552**	.650**
	Sig. (2-tailed)	.003		.012	.000	.000
	N	285	285	285	285	285
DED	Pearson Correlation	.011	.149*	1	.724**	.819**
	Sig. (2-tailed)	.853	.012		.000	.000
	N	285	285	285	285	285
ABS	Pearson Correlation	.013	.552**	.724**	1	.942**
	Sig. (2-tailed)	.823	.000	.000		.000
	N	285	285	285	285	285
Overall WE	Pearson Correlation	.074	.650**	.819**	.942**	1
	Sig. (2-tailed)	.211	.000	.000	.000	
	N	285	285	285	285	285
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Source: Survey Data

Table 7.12 shows the correlations between Affective Commitment and Work Engagement with its three subcomponents. AC is positively correlated with overall work engagement (r = 0.074, p = 0.211) but the correlation is insignificant as the p value is less than 0.05. The correlation is also positive and significant between AC and vigor (r = 0.178, p = 0.003). The correlation between AC and dedication (r = 0.011, p = 0.853) and absorption (r = 0.13, p = 0.823) is positive and insignificant. Table further provides the results of correlations among overall work engagement and its threes subcomponents. The correlation between overall work engagement and subcomponents is strongly positive and significant. Regarding the correlations among subcomponents of work engagement correlation in all cases is positive and significant.

Continuance Commitment and Work Engagement

The correlations between Continuance Commitment (CC), the second component of organisational commitment and Work Engagement along with its three components namely Vigor, Dedication and Absorption were examined using Pearson Product - Moment Correlation as shown in table 7.13

Table 7.13

Correlations between Continuance Commitment and Work Engagement

Correlations CC*WE Components						
		CC	**VIG**	**DED**	**ABS**	**Overall WE**
CC	Pearson Correlation	1	.100	.070	.100	.109
	Sig. (2-tailed)		.092	.236	.092	.065
	N	285	285	285	285	285
VIG	Pearson Correlation	.100	1	.149*	.552**	.650**
	Sig. (2-tailed)	.092		.012	.000	.000
	N	285	285	285	285	285
DED	Pearson Correlation	.070	.149*	1	.724**	.819**
	Sig. (2-tailed)	.236	.012		.000	.000
	N	285	285	285	285	285

Correlations CC*WE Components						
		CC	**VIG**	**DED**	**ABS**	**Overall WE**
ABS	Pearson Correlation	.100	.552**	.724**	1	.942**
	Sig. (2-tailed)	.092	.000	.000		.000
	N	285	285	285	285	285
Overall WE	Pearson Correlation	.109	.650**	.819**	.942**	1
	Sig. (2-tailed)	.065	.000	.000	.000	
	N	285	285	285	285	285
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Source: Survey Data

Table 7.13 provides the results of correlations between Continuance Commitment and Work Engagement with its three subcomponents. Results reveal that the correlation of CC with overall work engagement (r = 0.109, p = 0.065) is positive and insignificant. The correlation of CC with vigor (r = 0.100, p = 0.092), dedication (r = 0.070, p = 0.236) and absorption subcomponents (r = 0.100, p = 0.092) is also positive and insignificant.

Normative Commitment and Work Engagement

Pearson Product - Moment Correlation analysis was conducted to find out the correlations between Normative Commitment (NC), the third component of organisational commitment and Work Engagement along with its three components.

Table 7.14

Correlations between Normative Commitment and Work Engagement

Correlations NC*WE Components						
		NC	**VIG**	**DED**	**ABS**	**Overall WE**
NC	Pearson Correlation	1	.078	.240**	.332**	.275**
	Sig. (2-tailed)		.187	.000	.000	.000
	N	285	285	285	285	285

Correlations NC*WE Components						
		NC	**VIG**	**DED**	**ABS**	**Overall WE**
VIG	Pearson Correlation	.078	1	.149*	.552**	.650**
	Sig. (2-tailed)	.187		.012	.000	.000
	N	285	285	285	285	285
DED	Pearson Correlation	.240**	.149*	1	.724**	.819**
	Sig. (2-tailed)	.000	.012		.000	.000
	N	285	285	285	285	285
ABS	Pearson Correlation	.332**	.552**	.724**	1	.942**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	285	285	285	285	285
Overall WE	Pearson Correlation	.275**	.650**	.819**	.942**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	285	285	285	285	285
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Source: Survey Data

Table 7.14 illustrates the results of correlations between Normative Commitment and Work Engagement with its three subcomponents. As per results NC is positively correlated with overall work engagement (r = 0.275, p = <0.001) and its three subcomponents; vigor (r = 0.078, p = 0.187), dedication (r = 0.240, p = <0.001) and absorption (r = 0.332, p = <0.001). The correlation is significant in all cases other than NC and vigor.

Overall Organisational Commitment and Work Engagement

The correlations between total Organisational Commitment and Work Engagement with its three components namely vigor, dedication and absorption were examined by the means of Pearson Product - Moment Correlation as illustrated in table 7.15.

Table 7.15

Correlations between Overall Organisational Commitment and Work Engagement

Correlations						
		Overall OC	**VIG**	**DED**	**ABS**	**Overall WE**
Overall OC	Pearson Correlation	1	.157**	.114	.158**	.144**
	Sig. (2-tailed)		.008	.054	.007	.003
	N	285	285	285	285	285
VIG	Pearson Correlation	.157**	1	.149*	.552**	.650**
	Sig. (2-tailed)	.008		.012	.000	.000
	N	285	285	285	285	285
DED	Pearson Correlation	.114	.149*	1	.724**	.819**
	Sig. (2-tailed)	.054	.012		.000	.000
	N	285	285	285	285	285
ABS	Pearson Correlation	.158**	.552**	.724**	1	.942**
	Sig. (2-tailed)	.007	.000	.000		.000
	N	285	285	285	285	285
Overall WE	Pearson Correlation	.174**	.650**	.819**	.942**	1
	Sig. (2-tailed)	.003	.000	.000	.000	
	N	285	285	285	285	285
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Source: Survey Data

Table 7.15 shows the results of the correlations between Overall Organisational Commitment and Work Engagement with its subcomponents. The results clearly indicate that Organisational Commitment is slightly and positively correlated with Work Engagement ($r = 0.144$, $p = 0.003$). The table also provides the

results of correlations between total OC and three subcomponents of work engagement namely; vigor, dedication and absorption. Vigor (r = 0.157, p = 0.008) and absorption (r = 0.158, p = 0.007) have a positive and significant correlation with total WE while dedication (r = 0.114, p = 0.054) has a positive but insignificant correlation. Based on these results the null hypothesis 'There is no significant relationship between organisational commitment and work engagement' was rejected and a positive relationship was established between emotional intelligence and organisational commitment.

In the past literature work engagement was correlated with organisational commitment where organisational commitment was treated as both precedent and antecedent of work engagement. The findings of the study support many previous findings that correlated work engagement with organisational commitment. In a recent study Aulia. (2016) found that work engagement has a significant positive relationship with organisational commitment (r = .447, p < .001). Rothmann and Jordaan (2006) also found a positive correlation between work engagement and organisational commitment. Jackson, Rothmann and Van de Vijver (2006) stated that "employees who are engaged in their work will be more committed towards their work and organisation". Bakker and Demerouti (2008) and Field and Buitendach (2011) posited that "work engagement has a correlational and predictive relationship with organisational commitment". "Organisational commitment is believed as an important workplace outcome" (Field & Buitendach, 2011) and work engagement is thought to be strongly related to it. Hakanen, Bakker, and Schaufeli (2006) have confirmed that "work engagement actually had predictive value for teachers' organisational commitment".

7.4 Section B: Analysis of Effects

This section focuses on fulfilling the fourth objective of the study i.e. examining the effect of emotional intelligence on selected HR outcomes (organisational commitment and work engagement) of Kerala mental healthcare employees. Structural Equation Modelling (SEM) analysis in AMOS software package was performed to fulfil this objective. The data for the study was collected

from mental healthcare employees working in public and private mental healthcare institutions in Kerala.

Structural Equation Modelling (SEM) is a comprehensive statistical method used in testing hypotheses about causal relationships among observed and unobserved variables. It has proved very useful in solving the problems in formulating theoretical constructions (Reisinger and Turner, 1999). Performing SEM analysis is believed to be better than other multivariate statistical tools that include path analysis, multiple regression analysis and factor analysis. The interaction effects among dependent and independent variables are not considered in traditional statistical techniques. On the other hand SEM examines a series of dependence relationships simultaneously to address complicated managerial and behavioural issues. SEM can expand the explanatory ability and statistical efficiency for model testing with a single comprehensive method (Pang, 1996; Yilmaz, 2004). SEM is seemed to be a method for representing, estimating and testing a theoretical network of linear relations between variables (Rigdon, 1998). There are many kinds of goodness of fit indexes and the statistical functions that helps in understanding the model fit. The most common of them are RMSEA (Root-mean-square error approximation) and GFI (Goodness-of-fit index) (Joreskog and Sorbom, 2001). Hayduk (1987) advocated that if the RMSA is equal or smaller than 0.05, it shows a perfect fit. If it is between 0.08 and 0.10 then it means that there is an acceptable fit, but if it is greater than 0.10 then it corresponds to a bad fit.

Academicians have debated theories concerning the relationships among certain hypothetical constructs. They are modelling these theorised relationships with an intention to test the theoretical model with the empirical data from the field. In this study three models were developed based on the theoretical relationships among study variables; emotional intelligence, organisational commitment and work engagement. These theorised models were tested empirically by the means of data collected from mental healthcare employees.

The first theoretical model was developed to test the effect of emotional intelligence on organisational commitment as shown in Fig 7.1.

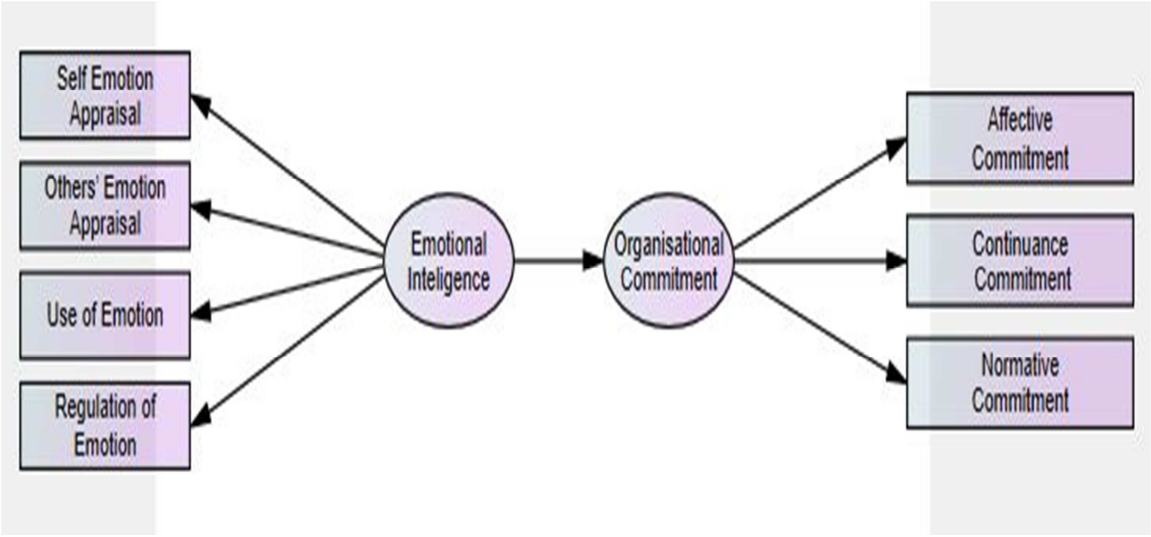


Fig 7.1: Proposed Theoretical Model for Testing Effect of Emotional Intelligence on Organisational Commitment.

The second theoretical model was developed to test the effect of emotional intelligence on work engagement as illustrated in Fig 7.2.

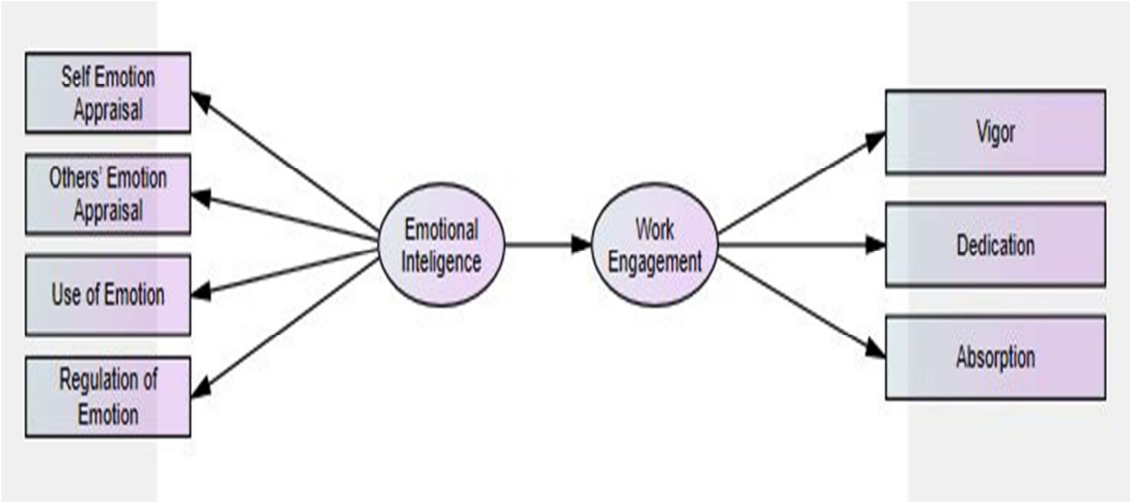


Fig 7.2: Proposed Theoretical Model for Testing Effect of Emotional Intelligence on Work Engagement.

The third theoretical model was developed to test the effect of organisational commitment on work engagement as depicted in Fig 7.3.

The following null hypotheses were set to be tested in this section for the purpose of SEM analysis:

- Emotional Intelligence is positively related with Organisational Commitment of mental healthcare employees.
- Emotional Intelligence is positively related with Work Engagement of mental healthcare employees.
- Work Engagement is positively related with Organisational Commitment of mental healthcare employees.

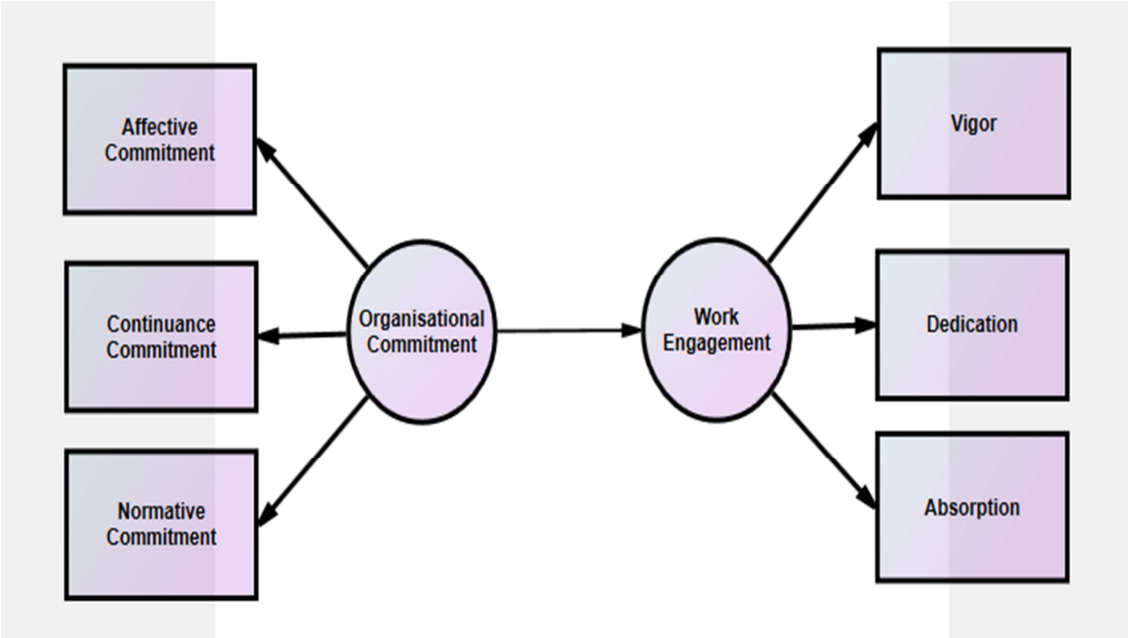


Fig 7.3: Proposed Theoretical Model for Testing Effect of Organisational Commitment on Work Engagement.

7.4.1 Effect of Emotional Intelligence on Organisational Commitment

Generally, positive correlations are established between emotional intelligence and organisational commitment. Individuals or employees with high emotional intelligence are seemed to be more committed to their organisations (Nikolaou and Tsaousis, 2002). Abraham (2000) suggests that emotional intelligence is strong related with organisational commitment. Contrary to these views some

researchers have reported a negative relationship or low effect between these two variables. Wong and Law (2002) suggested that emotional intelligence did not associate significantly with organisational commitment while Guleryuz et al. (2008) stated that emotional intelligence is not directly related to organisational commitment.

The hypothesised model shown in Figure 7.1 was tested using AMOS Graphic to find out the regression effect of emotional intelligence on organisational commitment of mental healthcare employees. The model was analysed and validated using the empirical data collected from mental healthcare employees. In AMOS Graphic, the rectangles represent the directly observed variables and ellipses represent the unobserved variable or latent constructs. Once the schematic diagram of theoretical framework was converted into AMOS Graphic model as shown in Figure 7.1 the corresponding variables and constructs involved in the model was identified for the purpose of analysis and determining how the values will be measured. The prominent latent construct and variables involved in the model are identified as follows:

1. **Emotional Intelligence**: It was set as a latent or formative construct. This Formative Construct is mainly formed by four variables namely Self Emotion Appraisal, Others' Emotion appraisal, Use of Emotion and Regulation of Emotion. The data for these variables were obtained directly from the respondents through structured questionnaires.

2. **Organisational Commitment** was set as the second Formative construct in this model. It consists of three variables namely Affective Commitment, Continuance Commitment, and Normative Commitment.

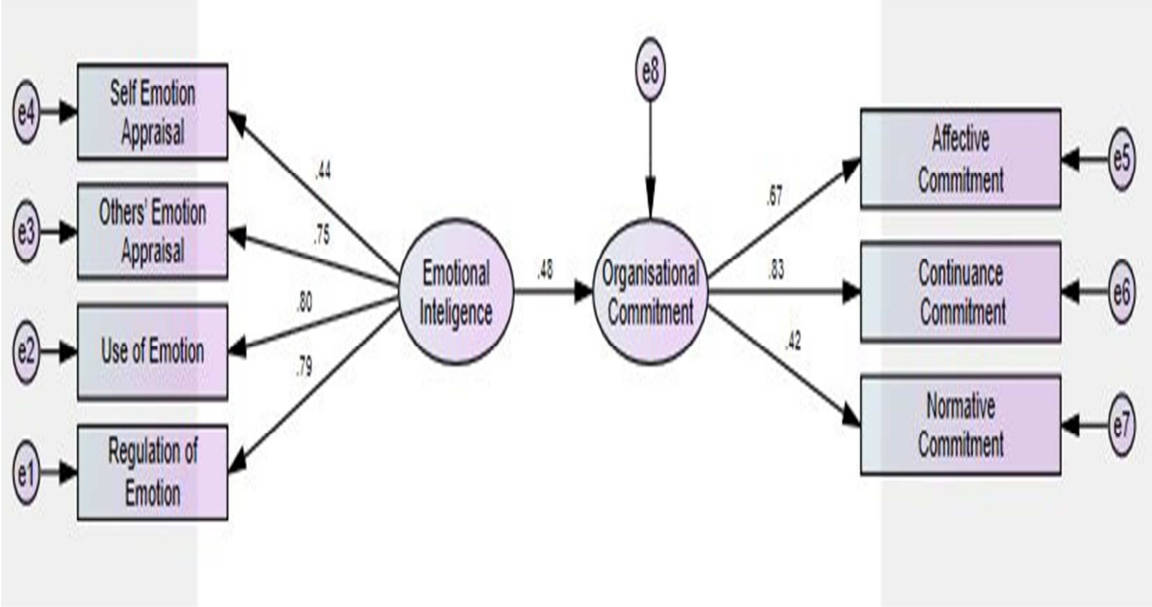


Fig 7.4: Structural Equation Model showing effect of Emotional Intelligence on Organisational Commitment

The results and output of SEM analysis using AMOS graphics to find out the effect of emotional intelligence on organisational commitment are depicted in the figure 7.4 of the model as given above. The results and values given in the figure 7.4 and table 7.16 provide a quick overview of the model tested and its fit indices. Goodness of Fit index (GFI) obtained for the model is 0.922 against the recommended value of above 0.90. The Adjusted Goodness of Fit Index (AGFI) is 0.907 against the recommended value of above 0.90. The Normed fit Index (NFI), Relative Fit index (RFI), Comparative Fit index (CFI), Tucker Lewis Index (TLI) are 0.911, 0.909, 0.917, 0.920 respectively against the recommended level of above 0.90. RMSEA is 0.032 which is well below the recommended limit of 0.08. Root Mean Square Residual (RMR) is also well below the recommended limit of 0.05 at 0.023. This can be interpreted as meaning that the model explains the correlation within an average error of 0.023 (Hu and Bentler, 1990). The tested model has an overall acceptable fit in all indices.

Table 7.16

Model Fit Indices

	GFI	AGFI	NFI	RFI	CFI	TLI	RMSEA	RMR
Obtained	.922	.907	.911	.909	.917	.920	.032	.023
Recommended	>.90	>.90	>.90	>.90	>.90	>.90	<0.08	<0.05

Source: Survey Data

The standardised path coefficient or regression effect of emotional intelligence on organisational commitment was found to be 0.48. The value clearly indicates that every one unit increase in emotional intelligence will result in a 0.48 unit increase in organisational commitment of mental healthcare employees. More importantly, the effects of emotional intelligence on organisational commitment was found to be positive and significant ($p = <0.001$). The hypothesis, 'Emotional Intelligence is positively related with Organisational Commitment of mental healthcare employees' was accepted and a positive and significant effect of emotional intelligence was established on organisational commitment.

The present findings are in line with the results of many previous studies that established the predictive value and meaningful relationship between emotional intelligence on organisational commitment. Emotional intelligence was related with job outcomes such as job satisfaction and organisational commitment (Wong and Law, 2002) and employees with high emotional intelligence were found to be more committed to their organisation (Nikolaou and Tsaousis, 2002). Carmeli (2003) found that employees with high emotional intelligence had higher levels of affective commitment and attachment to organisation. A large number of studies conducted in different occupational categories have shown that emotional intelligence skills have significant but low effect on organisational commitment (Guleryuz et al., 2008; Aghdasi, Kiamanesh and Ebrahim, 2011; Nordin, 2012). The present finding strongly support the findings Nikolaou and Tsaousis, (2002), Carmeli (2003), Likewise, Abraham (2000), Taboli, H. (2013) which concluded that high emotional intelligence is related to high levels of employees' organisational commitment.

7.4.2 Effect of Emotional Intelligence on Work Engagement

Several studies have positively correlated emotional intelligence to work engagement and suggested that emotional intelligence is related to concepts similar to engagement such as personal satisfaction (Abraham, 2000). Employees are directed to manage their emotional state for maintaining a high level of work engagement (Frederickson, 2001). Khuong and Yen (2014) have reported that employees with higher sociability were also more engaged with their jobs. Zhu Y, Liu C, et al. (2015) concluded that emotional intelligence is positively correlated with work engagement with the standardised pathway coefficient of 0.58. Thor (2012) found a moderate relationship between emotional intelligence and work engagement, with emotional intelligence predicting work engagement where emotional self management reported the strongest relationship with work engagement.

Figure 7.2 shows the schematic figure of hypothesised model developed for examining the regression effect of emotional intelligence on work engagement. This model was tested using AMOS Graphic based on the empirical data collected from mental healthcare employees. In AMOS Graphic, the rectangles represent the directly observed variables and ellipses represent the unobserved variable or latent constructs. The prominent latent construct and variables involved in the hypothesised model are identified as follows:

1. **Emotional Intelligence**: It was set as a latent or formative construct. This Formative Construct is mainly formed by four variables namely Self Emotion Appraisal, Others' Emotion appraisal, Use of Emotion and Regulation of Emotion. The data for these variables were obtained directly from the respondents through structured questionnaires.

2. **Work Engagement** was set as the second Formative construct in this model. It consists of three variables namely Vigor, Dedication and Absorption.

The results and output of SEM analysis using AMOS graphics to find out the effect of emotional intelligence on work engagement are illustrated in the figure 7.5 of the model as given below:

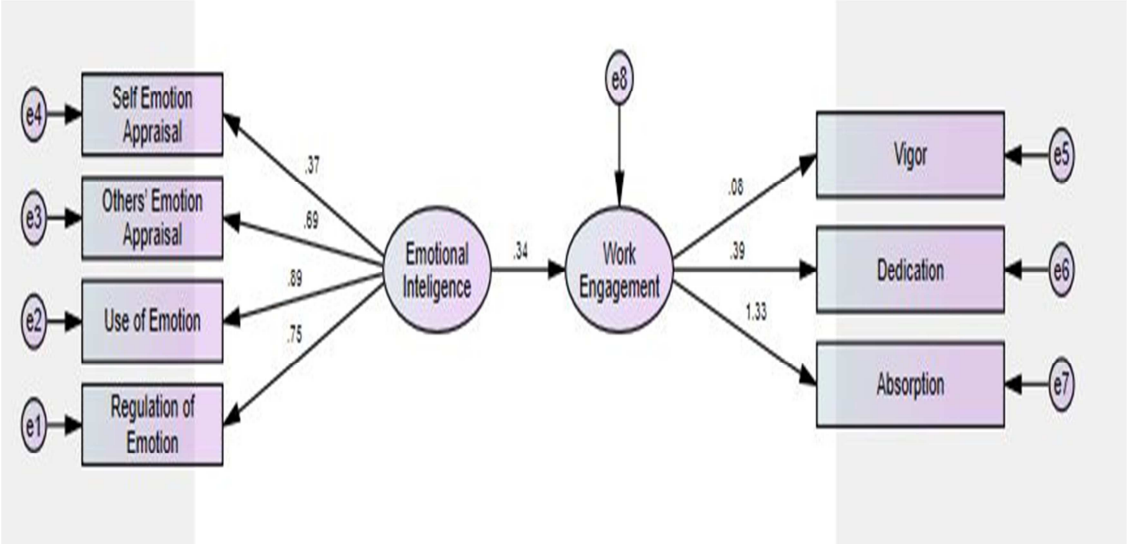


Fig 7.5: Structural Equation Model showing effect of Emotional Intelligence on Work Engagement

The results shown in table 7.17 and figure 7.5 provide a quick overview of the model tested. In model fit indices the Goodness of Fit index (GFI) is 0.930 which is above the recommended value of 0.90. The Adjusted Goodness of Fit Index (AGFI) is 0.911 against the recommended value of above 0.90. The Normed fit Index (NFI), Relative Fit index (RFI), Comparative Fit index (CFI), Tucker Lewis Index (TLI) are 0.908, 0.913, 0.909, 0.912 respectively against the recommended level of above 0.90. RMSEA is 0.063 and is well below the recommended limit of 0.08. Root Mean Square Residual (RMR) is also well below the recommended limit of 0.05 at 0.011 that can be interpreted as that the model explains the correlation within an average error of 0.011 (Hu and Bentler, 1990). The tested model has an overall acceptable fit in all indices.

Table 7.17

Model Fit Indices

	GFI	AGFI	NFI	RFI	CFI	TLI	RMSEA	RMR
Obtained	.930	.911	.908	.913	.909	.912	.063	.011
Recommended	>.90	>.90	>.90	>.90	>.90	>.90	<0.08	<0.05

Source: Survey Data

The analysis of the path diagram (Figure 7.5) reveals that the regression effect of emotional intelligence on work engagement is positive. The beta coefficient value was found to be 0.34 and p value is less than 0.005. The hypothesis 'Emotional Intelligence is positively related with Work Engagement of mental healthcare employees' was accepted establishing a significant positive relationship and regression effect between emotional intelligence and work engagement. The results indicated that every one unit change in emotional intelligence would results 34% increase in work engagement.

The findings strongly support the previous literature and findings that established significant positive relationship and predictive value between emotional intelligence and work engagement. Earlier, Jonker and Joubert (2009) have suggested that there is potential with regard to emotional intelligence predicting engagement in the workplace due to the strong relationship between emotional intelligence and several psychological wellbeing components. Thor (2012) stated that emotional intelligence can predict work engagement and both variables are moderately correlated. According to Zhu Y, Liu C, et al. (2015) emotional intelligence was positively correlated with work engagement with the standardised pathway coefficient of 0.58. Thus the present finding that emotional intelligence positively affects work engagement is consistent with previous findings of researchers such like Garrosa et al. (2011) Nel et al. (2013), Walker & Campbell (2013) and Zhu et al. (2015).

7.4.3 Effect of Work Engagement on Organisational Commitment

The positive relationship between Work Engagement and Organisational Commitment was studied and proved in many previous studies. Work engagement has been studied both as a precedent and antecedent of organisational commitment in the previous literature. It is considered as an antecedent of organisational commitment because people who are involved or engaged with their work tend to be more committed to their organisation (Jackson, Rothmann, & Van de Vijver, 2006; Saks, 2006). Bakker and Demerouti (2008) and Field and Buitendach (2011) posit that "work engagement has a correlational and predictive relationship with organisational commitment". Sulu et al (2010) state that "employees committed to organisation prefer remaining in organisation, even if they are offered more compelling alternatives". According to Kim YC, Rhee M. (2010), "committed employees have strong desire for remaining in organisation, because they have agreed to organisational values and goals personally and become actively involved in organisational activities".

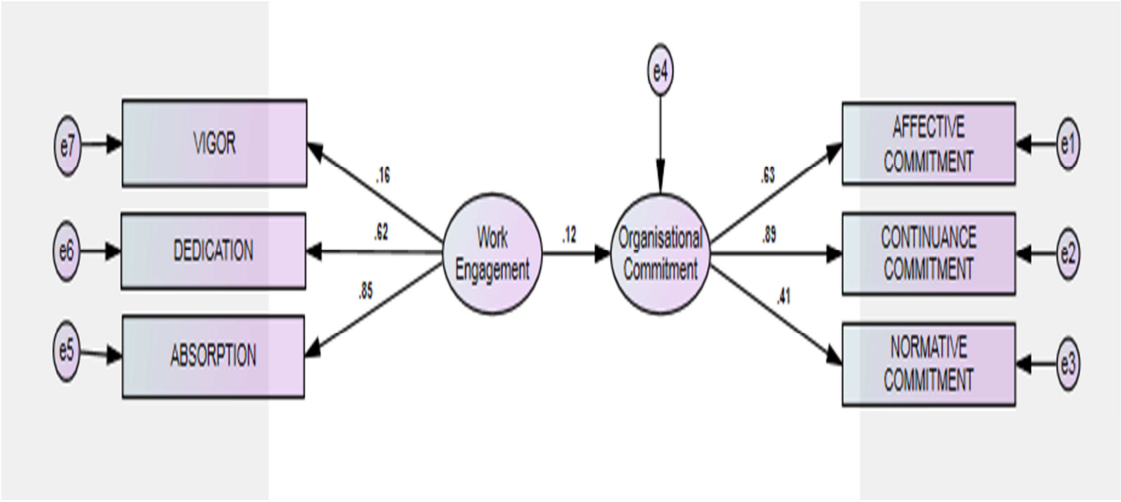


Fig 7.6: Structural Equation Model showing effect of Work Engagement on Organisational Commitment.

The effect of work engagement on organisational commitment in mental healthcare was evaluated in this section. Figure 7.3 shows the schematic figure of hypothesised model developed for examining the regression effect of work engagement on organisational commitment. This model was tested using AMOS

Graphic based on the empirical data collected from mental healthcare employees. The major latent construct and variables involved in the hypothesised model are identified as follows:

1. **Work Engagement**: It was set as a latent or formative construct. This Formative Construct is mainly formed by three variables namely Vigor, Dedication and Absorption. The data for these variables were obtained directly from the respondents through structured questionnaires.

2. **Organisational Commitment** was set as the second Formative construct in this model. It consists of three variables namely Affective Commitment, Continuance Commitment, and Normative Commitment..

The results and output of SEM analysis using AMOS graphics to find out the effect of work engagement on organisational commitment are illustrated in the figure 7.6 of the model as given above. The results shown in table 7.18 and figure 7.6 provide a quick overview of the model tested.

In model fit indices the Goodness of Fit index (GFI) is 0.983 which is above the recommended value of 0.90. The Adjusted Goodness of Fit Index (AGFI) is 0.954 against the recommended value of above 0.90. The Normed fit Index (NFI), Relative Fit index (RFI), Comparative Fit index (CFI), Tucker Lewis Index (TLI) are 0.940, 0.887, 0.969, 0.941 respectively against the recommended level of above 0.90. RMSEA is 0.063 and is well below the recommended limit of 0.08. Root Mean Square Residual (RMR) is also well below the recommended limit of 0.05 at 0.011 that can be interpreted as that the model explains the correlation within an average error of 0.011 (Hu and Bentler, 1990). The tested model has an overall acceptable fit in all indices.

Table 7.18

Model Fit Indices

	GFI	AGFI	NFI	RFI	CFI	TLI	RMSEA	RMR
Obtained	.983	.954	.940	.887	.969	.941	.058	.028
Recommended	>.90	>.90	>.90	>.90	>.90	>.90	<0.08	<0.05

Source: Survey Data

The analysis of the path diagram (Figure 7.5) reveals that the regression effect of work engagement on organisational commitment is positive. The standardised beta coefficient value was found to be 0.12 and p value is less than 0.005. The hypothesis 'Work Engagement is positively related with Organisational Commitment of mental healthcare employees' was accepted establishing a significant positive relationship and regression effect between work engagement and organisational commitment. The results indicated that every one unit change in work engagement would results 12% increase in organisational commitment.

The findings of the present study are supported by many previous studies that revealed significant positive relationship and regressive effect between work engagement and organisational commitment. Bakker and Demerouti (2008) and Field and Buitendach (2011) have posited that "work engagement has a correlational and predictive relationship with organisational commitment". They agree that work engagement can lead to positive work outcomes such as organisational commitment. Jackson, Rothmann and Van de Vijver (2006) stated that "employees who are engaged in their work will be more committed towards their work and organisation". In their prominent work, Hakanen, Bakker, and Schaufeli (2006) have confirmed that "work engagement actually had predictive value for teachers' organisational commitment". Alarcon, Lyons, and Tartaglia (2010) conducted a study to assess the commitment of military personnel and the results confirmed that "commitment is affected by work engagement". "Work engagement is postulated as an antecedent of organisational commitment because people who are involved or engaged with their work tend to be more committed to their organisation" (Jackson, Rothmann, & Van de Vijver, 2006; Saks, 2006). An increase in the work engagement of employees is

associated with positive outcomes such as organisational commitment, job satisfaction, in - role performance and creativity, and negatively related to turnover intentions (Hakanen et al., 2006; Schaufeli & Bakker, 2004). Research studies have concluded that work engagement will result in 40% variance in organisational commitment (Field & Buitendach, 2011).

7.5 Section C: Analysis of Mediation Effects

Mediation and moderation analyses are two useful tools to understand the trend of relationship between an independent and dependent variable by checking the influence of a third variable in the relationship. Moderation usually examines whether a third variable influences the strength or the direction of the relationship between an independent and dependent variable and mediation evaluates the role of mediator that mediates the relationship between independent and dependent variables by explaining the reasons for such a relationship to exist. In a perfect mediation an independent variable causes for some change in mediator variable that leads to the change in the dependent variable. Thus the purpose of mediation analysis is to examine the whether the influence of mediator is stronger than the direct influence of the independent variable.

The direct effect of emotional intelligence on organisational commitment and work engagement of mental healthcare employees was assessed in the previous section and a significant regressive effect of emotional intelligence was established on both organisational commitment and work engagement of mental healthcare employees. The mediation analysis in this section examines the mediating role of work engagement in the relationship between emotional intelligence and organisational commitment and the mediating role of organisational commitment in the relationship between emotional intelligence and work engagement.

The mediation analysis in this study was conducted by following the guidelines proposed by Baron and Kenny (1986) to test the mediation effect of a mediator on the relationship between the independent and dependent variables. According to Baron and Kenny (1986) for mediation analysis there must be a

significant relationship between the predictor and the outcome variable and the relationship between the predictor and the hypothesized mediator should be significant. If the mediation effect was established the strength of relationship between the predictor and the outcome will reduced after controlling for the effect of the mediator. According to them the using of unstandardised coefficients in mediating analysis is most preferable.

For the purpose of mediation analysis the following hypotheses were formulated:

1. Work Engagement mediates the relationship between Emotional Intelligence and Organisational Commitment of mental healthcare employees.

2. Organisational Commitment mediates the relationship between Emotional Intelligence and Work Engagement of mental healthcare employees.

7.5.1 Mediating Role of Work Engagement

The mediating role of work engagement in the relationship between emotional intelligence and organisational commitment of mental healthcare employees or the indirect effect of emotional intelligence on organisational commitment through work engagement was evaluated through SEM analysis in Amos. In a previous model (see Fig 7.4) the total direct effect of emotional intelligence and organisational commitment was found to be positive and significant ($\beta=0.48$, $p<0.001$). The present model includes work engagement as mediator and examines whether it can influence the established effect and relationship between emotional intelligence and organisational commitment.

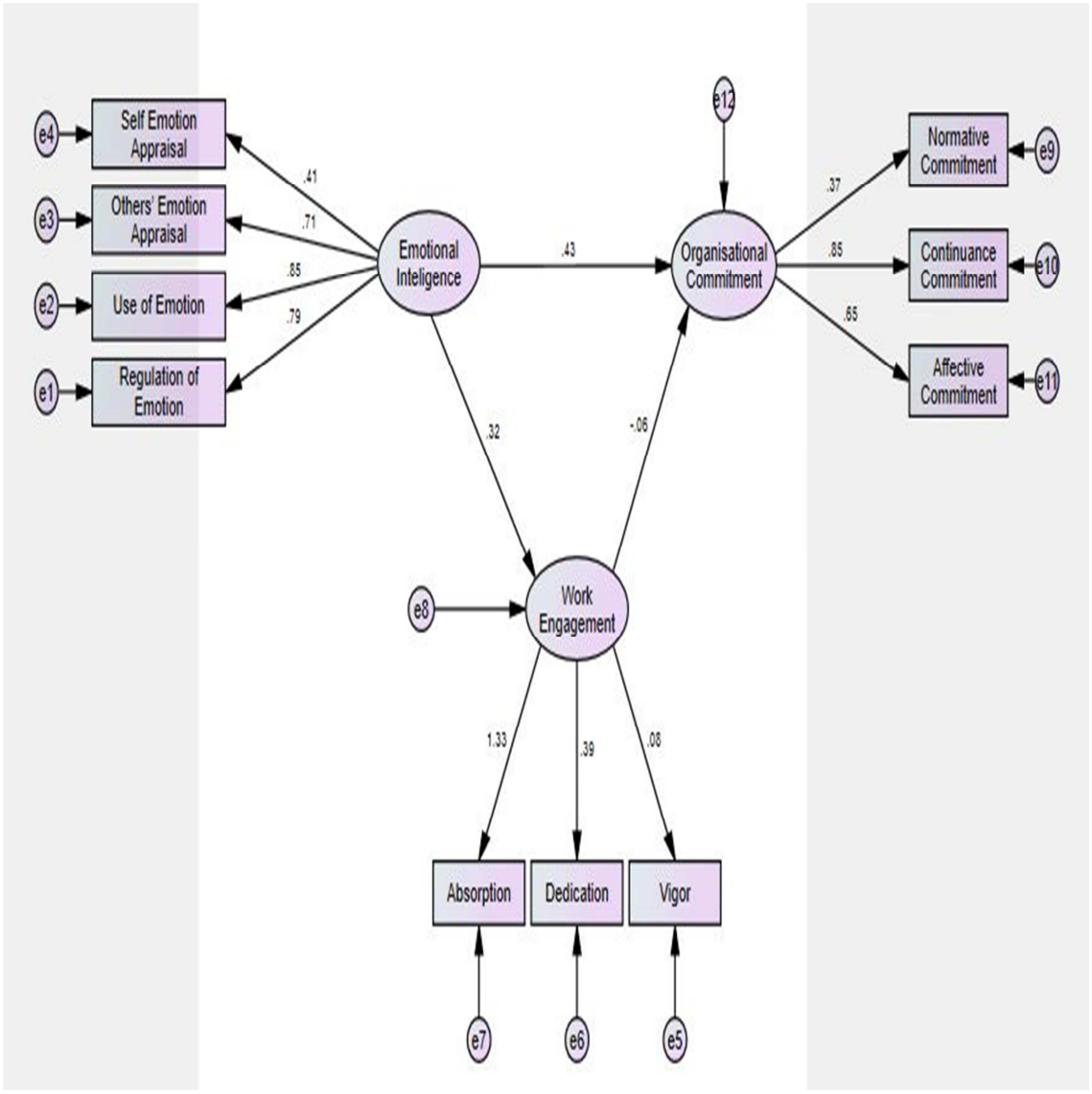


Fig 7.7: Structural Equation Model - Work Engagement as a mediator

The results shown in table 7.19 and figure 7.7 provide a clear picture of the model tested for mediation analysis. All model fit indices were within the recommended limit and model was found to be very fit. Goodness of Fit index (0.910) was above the recommended value of 0.90 and The Adjusted Goodness of Fit Index (0.901) was also above the recommended value of 0.90. The Normed fit Index (NFI), Relative Fit index (RFI), Comparative Fit index (CFI), Tucker Lewis Index (TLI) were 0.903, 0.905, 0.906, 0.917 respectively against the recommended level of above 0.90. RMSEA is 0.053 is well below the recommended limit of 0.08.

Root Mean Square Residual (RMR) is also well below the recommended limit of 0.05 at 0.011 that can be interpreted as that the model explains the correlation within an average error of 0.011 (Hu and Bentler, 1990). The tested model has an overall acceptable fit in all indices.

Table 7.19

Model Fit Indices

	GFI	**AGFI**	**NFI**	**RFI**	**CFI**	**TLI**	**RMSEA**	**RMR**
Obtained	.910	.901	.903	.905	.906	.917	.053	.049
Recommended	>.90	>.90	>.90	>.90	>.90	>.90	<0.08	<0.05

Source: Survey Data

The results and output shown in the model (see Fig 7.7) clearly indicate that work engagement partially mediates the relationship between emotional intelligence and organisational commitment. Work engagement after entering the model as a mediator reduced the effect of emotional intelligence on organisational commitment. The indirect effect of emotional intelligence on organisational commitment through work engagement was found to be 0.43. The beta coefficient for emotional intelligence was decreased from 0.48 to 0.43 due to the mediating effect of work engagement. The mediation of work engagement in the relationship between emotional intelligence and organisational commitment was not a perfect mediation. It was only a partial mediation as the direct effect of independent variable on dependent variable was found to be significant even after entering the mediator to the model. The direct effect of emotional intelligence on organisational commitment was still significant after work engagement was entered to the model as a mediator. The hypothesis 'Work Engagement mediates the relationship between Emotional Intelligence and Organisational Commitment of mental healthcare employees' was accepted and a partial mediation was established.

Some earlier studies have attempted to examine the mediating role of some mediators in the relationship between emotional intelligence and organisational commitment and confirmed the indirect effect of emotional intelligence on organisational commitment through mediating variables. Guleryuz et al. (2008),

Nikkheslat, M. et al. (2012) and Taboli, H. (2013) evaluated the mediating role of job satisfaction in the relationship between emotional intelligence and organisational commitment and concluded that being satisfied with the job can lead to mediation between emotional intelligence and being committed to the organisation. Singh, T. (2016) hypothesised psychological well being to mediate the relationship between emotional intelligence and organisational commitment among a sample of employees working for NGOs in west Delhi, India and concluded that emotional intelligence could lead to organisational commitment through the partial mediation of psychological well-being.

7.5.2 Mediating Role of Organisation Commitment

The direct total effect of emotional intelligence on work engagement of mental healthcare employees was found to be significantly positive (β=0.34, $p<0.001$) as explained in an above given SEM model (see Fig 7.5). In this part a SEM model was developed to examine the mediating role of organisational commitment in the relationship between emotional intelligence and work engagement of mental healthcare employees. The present model includes organisational commitment as mediator and examines whether it can influence the established effect and relationship between emotional intelligence and work engagement. In any mediation analysis the direct effect of independent variable on dependent variable is expected to decrease due to the mediating role of the mediator. Here organisational commitment as a mediator is expected to reduce the direct effect of emotional intelligence on work engagement.

Table 7.20

Model Fit Indices

	GFI	**AGFI**	**NFI**	**RFI**	**CFI**	**TLI**	**RMSEA**	**RMR**
Obtained	.918	.903	.906	.910	.911	.917	.044	.043
Recommended	>.90	>.90	>.90	>.90	>.90	>.90	<0.08	<0.05

Source: Survey Data

The figure 7.8 given below illustrates the mediation effect of organisational commitment in the relationship between emotional intelligence and work engagement of mental healthcare employees.

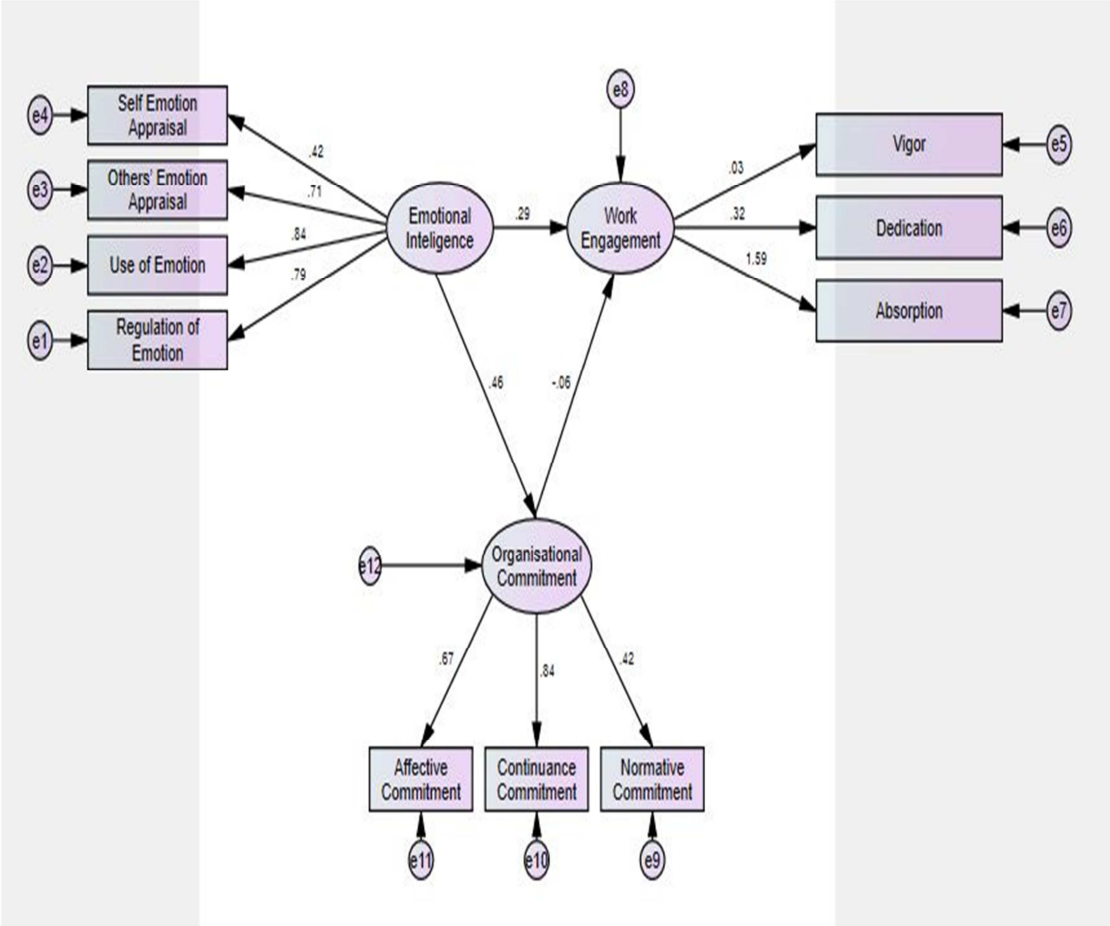


Fig 7.8: Structural Equation Model - Organisational Commitment as a mediator

The values given in table 7.20 and figure 7.8 provide a clear picture of the model tested for mediation analysis. All model fit indices were found to be within the recommended limit and model was found to be very fit and valid. The major indices like Goodness of Fit index (0.918), The Adjusted Goodness of Fit Index (0.903), The Normed fit Index (0.906), Relative Fit index (0.910), Comparative Fit index (0.911), Tucker Lewis Index (0.917) were above the recommended levels. RMSEA (0.044) is well below the recommended limit of 0.08 and Root Mean Square Residual (0.043) was also below the recommended limit of 0.05.

The results shown in the model (see Fig 7.8) clearly indicate that organisational commitment could partially mediate the relationship between emotional intelligence and work engagement. Organisational commitment after entering the model as a mediator reduced the effect of emotional intelligence on work engagement. The indirect effect of emotional intelligence on work engagement through organisational commitment is 0.29. The beta coefficient for emotional intelligence was decreased from 0.34 to 0.29 due to the mediating effect of organisational commitment. However the mediation of organisational commitment in the relationship between emotional intelligence and work engagement was found not to be a perfect mediation. It was only a partial mediation as the direct effect of independent variable on dependent variable was found to be significant even after entering the mediator to the model. The direct effect of emotional intelligence on work engagement was still significant after organisational commitment was entered to the model as a mediator. The hypothesis 'Organisational Commitment mediates the relationship between Emotional Intelligence and Work Engagement of mental healthcare employees' was accepted and a partial mediation was established.

The role of mediators in relationship between emotional intelligence and work engagement was analysed in some previous studies that examined the interrelations among these variables. In a study, Zhu Y, Liu C, et al. (2015) found statistically significant correlations between emotional intelligence and work engagement and proposed the mediating role of organisational justice in the emotional intelligence and work engagement relationship. According to their study findings organisational justice as a mediator accounted for a part of the relationship between emotional intelligence and work engagement. Brunetto et al. (2012) examined the effect of emotional intelligence upon the job satisfaction, well-being and engagement of police officers in explaining their organisational commitment and turnover intentions. The results of the study confirmed that organisational commitment would partially mediate the causal relationship between employee engagement and turnover intentions. It clearly indicated that emotional intelligence could lead to employee engagement through the mediating roles of job satisfaction and wellbeing. Schutte, N. S., & Loi, N. M. (2014) examined whether emotional

intelligence might be a foundation for workplace flourishing. The quality of employee work engagement was used as a marker of flourishing. The result concluded that both satisfaction with social support and perception of power were significant mediators of the relationship between emotional intelligence and work engagement.

7.6 Summarised Results of Hypotheses Tested

The summary of hypotheses formulated and tested in this chapter and results are given in the table 7.21

Table 7.21

Testing of Hypotheses

Analysis of Relationships					
S. No.	**Hypotheses**	**Test**	**r**	**P Value**	**Results**
1	There is no significant relationship between emotional intelligence and organisational commitment.	Pearson Correlation	0.42	<0.001	H_0 Rejected
2	There is no significant relationship between emotional intelligence and work engagement.	Pearson Correlation	0.31	0.013	H_0 Rejected
3	There is no significant relationship between organisational commitment and work engagement.	Pearson Correlation	0.14	<0.001	H_0 Not Rejected
Analysis of Effects					
S. No.	**Hypotheses**	**Test**	**Beta value**	**P Value**	**Results**
4	Emotional Intelligence is positively related with Organisational Commitment of mental healthcare employees.	SEM	0.48	<0.001	H_0 Rejected
5	Emotional Intelligence is positively related with Work Engagement of mental healthcare employees.	SEM	0.34	<0.001	H_0 Rejected

Analysis of Relationships					
S. No.	**Hypotheses**	**Test**	**r**	**P Value**	**Results**
6	Work Engagement is positively related with Organisational Commitment of mental healthcare employees.	SEM	0.12	<0.001	H_0 Rejected
Analysis of Mediation Effects					
S. No.	**Hypotheses**	**Test**	**Mediation Type**	**P Value**	**Results**
7	Work Engagement mediates the relationship between Emotional Intelligence and Organisational Commitment of mental healthcare employees.	SEM - Mediation	Partial Mediation	<0.001	H_0 Rejected
8	Organisational Commitment mediates the relationship between Emotional Intelligence and Work Engagement of mental healthcare employees.	SEM - Mediation	Partial Mediation	<0.001	H_0 Rejected

REFERENCES

Abraham, R. (2000). The role of job control in emotional dissonance and emotional intelligence outcome relationships. *The Journal of Psychology*, 134, 169 - 184.

Aghdasi, S., Kiamanesh, A. R., Ebrahim, A. N. (2011). Emotional Intelligence and organisational commitment: testing the mediatory role of occupational stress and job satisfaction. *Procedia social and Behavioural Sciences*, 29, 1965-1976

Alarcon, G., Lyons, J. B., & Tartaglia, F. (2010). Understanding predictors of engagement within the military. *Military Psychology*, 22(3), 301.

Aulia. (2016). Emotional Intelligence, Work Engagement, and Organisational Commitment of Indonesian Army Personnel. *Indonesian Psychological Journal*, 2016, 31(3), 124 - 131.

Bakker, A.B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, *13,* 209 - 223.

Brunetto, Y., Teo, S. T., Shacklock, K., & Farr-Wharton, R. (2012). Emotional intelligence, job satisfaction, well-being and engagement: Explaining organisational commitment and turnover intentions in policing. *Human Resource Management Journal*, 22(4), 428-441.

Carmeli. A. (2003). The relationship between emotional intelligence and work attitudes, behavior and outcomes: An examination among senior managers. *Journal of Managerial Psychology, 18* (8), 788 - 813.

Field, L. K., & Buitendach, J. H. (2011). Happiness, work engagement and organisational commitment of support staff at a tertiary education institution in South Africa. *South African Journal of Industrial Psychology, 37,* 68 - 77.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-andbuild theory of positive emotions. *American Psychologist*, 56, 218-226.

Garrosa E, Moreno-Jimenez B, Rodriguez- Munoz A & Rodriguez-Carvajal R (2011) Role stress and personal resources in nursing: a cross-sectional study of burnout and engagement. *International Journal of Nursing Studies* 48, 479 - 489.

Guleryuz, G., Guney, S., Aydin, E. M., & Asan, O. (2008). The mediating effect of job satisfaction between emotional intelligence and organisational commitment of nurses: A questionnaire survey, *International Journal of Nursing Studies*, 45, 1625-1635.

Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, 43, 495 - 513.

Hayduk, L.A. (1987). *Structural equation modeling with LISREL: Essentials and Advances*. Baltimore: John Hopkins.

Jackson, L.T.B., Rothmann, S., & Van de Vijver, A.J.R. (2006). A model of work-related well-being for educators in South Africa. *Stress and Health*, 22, 263 - 274.

Jöreskog, K. & Sörbom, D. (2001). *LISREL 8: User's reference guide*. Chicago: Scientific Software International Inc.

Khalili, A., (2011). Gender Differences in Emotional Intelligence Among Employees of Small and Medium Enterprise: An Empirical Study. *Journal of International Management Studies*, 6 (2), 184 - 193.

Khuong, M. N., & Yen, N. H. (2014). The effects of leadership styles and sociability trait emotional intelligence on employee engagement. A study in Binh Duong City, Vietnam. *International Journal of Current Research and Academic Review*, 2(1), 121-136.

Kim YC, Rhee M. (2010). The contingent effect of social network on organisational commitment: A comparison of instrument and expressive ties in a multinational high technology company. *Sociological perspectives*. 53(4), 479-502.

Levine, T. R., Weber, R., Hullett, C., Park, H. S., & Lindsey, L. L. M. (2008). A critical assessment of null hypothesis significance testing in quantitative communication research. *Human Communication Research*, 34, 171–187

Nel J.A., Jonker C.S. & Rabies T. (2013). Emotional intelligence and wellness among employees working in the nursing environment, *Journal of Psychology in Africa* 23(2), 195 - 203.

Newton, R. R., Rudestam, K. E. (1999). *Your statistical consultant: Answers to your data analysis questions*. Thousand Oaks, CA: Sage..

Nikkheslat, M., Asgharian, R. Saleki, Z. S. & Hojabri, R. (2012). The Relationship between Emotional Intelligence and Organisational Commitment: The Mediating Role of Job Satisfaction. *International Journal of Research in Management and Technology*, 2, 495-498.

Nikolaou, I., & Tsaousis, I. (2002). Emotional intelligence in the workplace: Exploring its effects on occupational stress and organisational commitment. *The International Journal of Organisational Analysis*, *10*(4), 327-342.

Nordin, N. (2012). Assessing emotional intelligence, leadership behaviour and organisational commitment in a higher learning institution. *Procedia - Social and Behavioral Sciences*, 56, 643-65.

Pang, N.S.K. (1996). School values and teachers' feelings: A LISREL model. *Journal of Educational Administration*, 34: 64-83

Ravichandran, K., Arasu, K. & Kumar, A. (2011). The impact of emotional intelligence on employee work engagement behavior: An empirical study. *International Journal of Business and Management 6*(11):157-169.

Reisinger, Y., & Turner, L. (1999). Structural equation modeling with LISREL: Application in tourism. *Tourism Management*, 20, 71-88.

Rigdon EE (1998). Structural Equation Modeling. In GA Marcoulides (Ed.), *Modern Methods for Business Research*, Lawrence Erlbaum, New Jersey, pp. 251-294.

Rothmann, S., & Jordaan, G. M. E. (2006). Job demands, job resources and work engagement of academic staff in South African higher education institutions. *SA Journal of Industrial Psychology, 32*(4), 87-96.

Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology, 21,* 600-619.

Schaufeli, W. B., & Bakker, A. B. (2004). Demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organisational Behavior*, 25, 293 - 315.

Schutte, N. S., & Loi, N. M. (2014). Connections between emotional intelligence and workplace flourishing. *Personality and Individual Differences*, 66, 134-139.

Sulu S, Ceylan A, Kaynak R. (2010). Work Alienation as a Mediator of the Relationship between Organisational Injustice and Organisational Commitment: Implications for Healthcare Professionals. *International Journal of Business and Management*, 5(8).

Taboli, H. (2013). Job satisfaction as a mediator in relation-ship between emotional intelligence, organisational commitment in employees' Kerman universities, *Life Science Journal*, 10(1), 1-8.

Thor, S. (2012). *Organisational Excellence: A Study of the Relationship between Emotional Intelligence and Work Engagement in Process Improvement Experts* (Doctoral dissertation, George Fox University).

Walker, A., Campbell, K. (2013) Work readiness of graduate nurses and the impact on job satisfaction, work engagement and intention to remain. *Nurse Education Today* 33(12), 1490 - 1495.

Wong, C. S., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The Leadership Quarterly, 13,* 243–274.

Yılmaz, V. (2004). Consumer behavior of shopping center choice. *Social Behavior and Personality*, 32, 783-790.

Zhu Y, Liu C, et al. (2015) The impact of emotional intelligence on work engagement of registered nurses: the mediating role of organisational justice *Journal of Clinical Nursing*, 24, 2115–2124.

CHAPTER 8

SUMMARY OF FINDINGS, CONCLUSIONS AND SUGGESTIONS

Contents **Page No.**

8.1 Introduction

Emotional Intelligence is the ability to acquire and apply knowledge from our emotions and the emotions of others. EI is considered as a psychological construct having wide linkage and relationships with a variety of subjects like business management and human resource management. Organisational Commitment is a multidimensional psychological construct that refers to employees' loyalty to the organisation, their willingness to work on behalf of the organisation, degree of their goal and value congruency with the organisation and their desire to maintain membership. Work Engagement conceptually is an independent and distinct construct as a positive opposite of burnout. It is a dynamic and energetic work-related state of mind. According to Schaufeli, Salanova, et al. (2002), work engagement is explained as "a positive, fulfilling, work-related state of mind that is characterised by vigor, dedication, and absorption" (Schaufeli et al., 2002).

Healthcare sector in general and mental healthcare in special is a complex and stressful environment where interpersonal interactions are of paramount importance. Emotions and attitudes are important in all activities of this sector. Mental healthcare employees' work is surrounded by feelings and emotions, which are sometimes difficult to classify and identify and originate in patients as well as employees. Human resources are, without doubt, the core of the mental healthcare industry and an effective mental healthcare system depends mainly on their adequacy, quality and their right distribution. The recent statistics clearly indicates that people of Kerala is suffering from various forms of mental issues at an increased rate compared to other states in India.

The aim of the present investigation was to examine the inter linkages among emotional intelligence, organisational commitment and work engagement of mental healthcare employees. These behavioural concepts are believed to be core competencies for any healthcare system and there is an increased interest in examining the role of theses constructs in mental healthcare system and related patient oriented diagnosis activities. Several studies have indicated that behavioural competencies like emotional quotient can influence patient outcomes and healthcare

treatments as well as it can bring good results in medical treatment. In healthcare system medical professionals frequently contact with patients suffering from serious and minor ailments and deal with their families and caregivers. Burnout, stress and workload are the usual feature of healthcare sector where doctors and nurses get confronted with grave emotional issues and stress related factors.

The analyses and interpretations of the data in terms of hypotheses formulated were done in the previous chapters. This chapter aims to report major findings obtained in the study, a brief summary of the study, suggestions and conclusions of the research study. The suggestions for further researches in the related topics are also provided in this chapter.

8.2 Research Problem at a Glance

A large population of Kerala is believed to suffer from any kind of mental problems. The trend of suicidal behaviour, domestic violence, marital breakdown, attack on women and children and the like mental problems are increasing day by day. On the other hand the mental healthcare sector is lacking required facilities in terms of qualified personnel, nurses, medical equipments and the mental healthcare employees have to face severe emotional and mental problems at workplace as their work is surrounded with emotions and feelings. They have to deal daily with mentally ill people and make interaction with them. They have to work to increase community awareness of common mental disorders, reduce the associated stigma in society and support family caregivers. They have to maximize the effectiveness of prevention, identification, diagnosis and treatment activities targeting mental illness and ensure public access to mental health services to minimize costs to the public.

The human resource is the life blood of any organisation and its effective management is the only solution for eradicating the inefficiency and cultivating good work environment. Studies and researches related with application of innovative HR policies and tools in mental healthcare sector are very meagre and less. No more literature is available in connection with the application of newer HRM strategies to the routine works of mental healthcare sector. Emotional

Intelligence along with Organisational Commitment and Work Engagement are prominent HR related psychological constructs that can be examined in mental healthcare sector for better results in terms of improved performance and positive work relationships. Lack of researches and studies to assess and evaluate these HR aspects of mental healthcare employees is evidently bringing bad results in treatment, diagnosis, and dealing of caregivers with mental disorder patients.

The prevalent statistical records and World Health Organisation's reports on the status of mental disorders in India shed light to the pathetic condition of mental healthcare system in India that necessitates an immediate intervention from the part of all stakeholders such like researchers, academicians, public authorities and clinical practitioners. This study, as an attempt to assess the inter linkages among emotional intelligence, organisational commitment and work engagement of mental healthcare employees; can highlight the importance of application of useful behavioural concepts and approaches to the mental healthcare system.

8.2.1 Significance of the Study

Statistics show that the rate of mental health disturbances in Kerala is increasing day by day at an alarming rate. The more the material comfort of life people enjoy the greater the mental health of people deteriorating progressively. The major mental health problems prevalent in Kerala are mental retardation, suicide, aggression on others, alcoholism, divorce, domestic violence, use of drugs, attack on women and children, marital breakdown, severe psychological trauma, trend of school college dropouts and the like. National mental health program documents mentions that 20 to 30 million Indians are in need of some formal mental healthcare

Healthcare sector in general and mental healthcare in special is a complex and stressful environment where interpersonal interactions are of paramount importance. Emotions and attitudes are important in all activities of this sector. Mental healthcare employees' work is surrounded by feelings and emotions, which are sometimes difficult to classify and identify and originate in patients as well as employees. Human resources are, without doubt, the core of the mental healthcare

industry and an effective mental healthcare system depends mainly on their adequacy, quality and their right distribution.

Emotional Intelligence is the ability to acknowledge, understand and regulate one's own and other people's emotions, distinguish among them and use this information to guide one's thoughts and actions. Organisational Commitment and Work Engagement are two widely used constructs in industrial psychology that contribute profoundly to HRM policies. The benefits of these constructs have been demonstrated in different contexts of daily life and in professional activities. It includes the skills related with empathy, social responsibility and interpersonal relationships. These skills can play a vital role in the activities of mental healthcare employees once the interrelationship is proved among them. Any study assessing the relationships among these constructs in mental healthcare sector has deep rooted impact and effect on society and is of paramount importance for business and non business organisations.

This study could largely contribute to the existing literature of Emotional Intelligence, Organisational Commitment and Work Engagement and will be a valid addition to the ongoing conceptualisation process and validation of models in different cultural settings. It is more true to state that the research or literature is not abundantly available on theses constructs in relation to the mental healthcare sector. To assess the Emotional Intelligence, Organisational Commitment and Work Engagement of mental healthcare employees is need of hour and will definitely help in ensuring the effective service delivery in mental healthcare sector.

8.2.2 Objectives of the Study

The general objective of the study is to find the relationship between emotional intelligence and HR practices of mental healthcare employees in Kerala.

Specific objectives:

1. To assess the Emotional Intelligence level of mental healthcare employees in Kerala.

2. To assess the Organisational Commitment level of mental healthcare employees in Kerala.
3. To assess the Work Engagement level of mental healthcare employees in Kerala.
4. To examine the effect of emotional intelligence on HR outcomes (Organisational commitment and Work engagement) of mental healthcare employees in Kerala.
5. To evaluate the inter-linkages among Emotional Intelligence and selected HR outcomes (Organisational Commitment and Work Engagement) of mental healthcare professionals in Kerala.

8.2.3 Methodological Design

The study was both explorative and descriptive in nature as the study was conducted using the review of the relevant literatures and information from the data collected from respondents. The data for the study is collected from both primary and secondary sources. The population covers employees working in mental healthcare institutions of Kerala both from public and private sectors. The employees selected for the study are practitioners comprising psychiatrists, psychologists and social workers and nurses working in public and private mental healthcare institutions.

The population of the study was finite and the data from sample was collected from a sample using a self administered and structured questionnaire through stratified random sampling method. The sample size consisted of 285 employees from private and public mental healthcare institutions in Kerala. The survey questionnaire mainly consisted of three scales to assess the emotional intelligence, organisational commitment and work engagement of mental healthcare employees as follows:

- Wong and Law Emotional Intelligence Scale (WLEIS)
- Utrecht Work Engagement Scale (UWES)
- Organisational Commitment Scale (OCS)

The major variables assessed in the study were self emotion appraisal, others' emotion appraisal, use of emotion, regulation of emotion, affective

commitment, continuance commitment, normative commitment, vigor, dedication and absorption. The data was processed using the SPSS (Statistical Package for Social Sciences) software. The analysis was done mainly using descriptive and inferential statistics such as mean, frequency, standard deviation, T test, ANOVA, Post Hoc Analyses, exploratory and confirmatory factor analysis, correlation analysis and Structural Equation Modelling (SEM).

8.2.4 Presentation of the Study

The study was presented in eight chapters as follows:

Chapter 1 - Introduction:
Chapter 2 - Review of Literature
Chapter 3 - Theoretical Framework of the Study
Chapter 4 - Emotional Intelligence of Mental Healthcare employees
Chapter 5 - Organisational Commitment of Mental Healthcare employees
Chapter 6 - Work Engagement of Mental Healthcare employees
Chapter 7 - Inter linkages among Emotional Intelligence, Organisational Commitment and Work Engagement
Chapter 8 - Summary of Findings, Conclusions and Suggestions

8.3 Major Findings of the Study

The major findings and theoretical contributions of the study are highlighted in the following sections.

8.3.1 Emotional Intelligence of Mental Healthcare Employees

Self Emotion Appraisal:

- Mental healthcare employees in Kerala (n= 285) were found to be high level in self emotion appraisal. The mean score of self emotion appraisal dimension was 20.11 (S.D= 2.77).

- Mental healthcare employees in all categories were found to be at medium or high level in appraising the self emotions. In gender category male

employees (M = 19.12, SD = 2.33) possessed a medium level of self emotion appraisal and female employees (M = 20.85, SD = 2.85) scored a high level. In the category of marital status unmarried employees (M = 18.20, SD = 1.33) scored a medium level and married employees (M = 21.11, SD = 2.81) scored a high level of self emotion appraisal skill. In occupation category psychologists (M = 20.89, SD = 2.57) and nurses (M = 20.29, SD = 2.75) scored a high level and psychiatrists (M = 19.50, SD = 2.62), social workers (M = 19.19, SD = 3.07) scored a medium level. In the category of organisation public sector employees (M = 20.55, SD = 3.02) scored high and private sector employees (M = 19.94, SD = 2.67) scored medium. Based on experience, highly experienced employees (M = 24.66, SD = 1.88) scored high level while low experienced (M = 18.63, SD = 1.63) and moderately experienced employees (M = 19.88, SD = 1.93) scored a medium level of self emotion appraisal skill. The highly experienced employees scored the highest in self emotion appraisal scale while the unmarried employees scored the lowest among all employee categories.

- Self emotion appraisal skill of male employees (M = 19.12, SD = 2.33) and female employees (M = 20.85, SD = 2.85) were found to differ significantly; t (283) = -5.614, p = <0.001. Female employees scored a high level of self emotion appraisal while male employees scored a medium level.

- Self emotion appraisal skill of married employees (M = 21.11, SD = 2.81) in mental healthcare was significantly different from that of unmarried employees (M = 18.20, SD = 1.33); t (283) = -11.799, p = <0.001. Married employees scored highly in self emotion appraisal scale while unmarried employees scored a medium level.

- Mental healthcare employees were found to be significantly different in self emotion appraisal skill based on their experience. The highly experienced employees scored very highly in self emotion appraisal with mean score of 24.66 and standard deviation of 1.88. Moderately experienced employees showed more self emotion appraisal (M= 19.88 SD = 1.93) than low

experienced employees (M= 18.63 SD = 1.63). Self emotion appraisal of both moderately experienced and low experienced employees was found to be at medium level.

Others' Emotion Appraisal:

- The others' emotion appraisal level of mental healthcare employees in Kerala was evaluated by mean scores obtained in others' emotion appraisal scale. According to the data mental healthcare employees (n= 285) were found to be in medium level of others' emotion appraisal dimension. The mean score of others' emotion appraisal dimension of employees was 19.59 with a standard deviation of 3.10, meaning that they show a medium level of others' emotion appraisal skill.

- Mental healthcare employees in all categories possessed a medium or high level of others' emotion appraisal skill meaning that they are good in appraising others' emotions. In gender category both male (M = 19.04, SD = 2.68) and female employees (M = 20.00, SD = 3.33) scored a medium level score in others' emotion appraisal scale. Married employees (M = 20.55, SD = 3.08) possessed a high level of others' emotion appraisal while unmarried employees (M = 17.76, SD = 2.19) possessed a medium level. In occupation category all of the psychiatrists (M = 18.81, SD = 3.65), psychologists (M = 19.36, SD = 3.90), nurses (M = 19.81, SD = 2.89) and social workers (M = 19.42, SD = 2.90) obtained a medium level score. In organisational sector both public (M = 19.44, SD = 3.62) and private sector (M = 19.65, SD = 2.89) employees possessed a medium level of others' emotion appraisal skill. In experience category both highly experienced employees (M = 24.00, SD = 2.60) and moderately experienced (M = 20.09, SD = 1.69) possessed a high level of others' emotion appraisal skill while low experienced (M = 17.59, SD = 2.20) scored a medium level. Among all employee categories highly experienced employees scored highest and low experienced employees scored lowest in others' emotion appraisal skill.

- Female employees (n = 163) scored high (M = 20.00, SD = 3.33) in others' emotion appraisal dimension than their male counterparts (n = 122, M = 19.04, SD = 2.68). The difference in others' emotion appraisal skill of mental healthcare employees based on gender was statistically significant; t (283) = -02.682, p = 0.008. The result was consistent with earlier findings of Bar - on and Parker (2000) that women have more cognition and awareness for one's and others' emotions.

- Married employees were found to score highly in others' emotion appraisal skill compared to unmarried employees. Married employees scored a high level with a mean score of 20.55 (SD = 3.08) while unmarried employees scored a medium level (M = 17.76, SD = 2.19). Others' emotion appraisal skill of married employees in mental healthcare is significantly different from that of unmarried employees; t (283) = -8.831, p = <0.001.

- The Others' emotion appraisal of mental healthcare employees was analysed based on their occupational designations. The mean scores of others' emotion appraisal dimension revealed that psychiatrists (M = 18.81, SD = 3.65), social workers (M = 19.42, SD = 2.90), psychologists (M = 19.36, SD = 3.90) and nurses (M = 19.81, SD = 2.89) holds a medium level of others' emotion appraisal skill where nurses scored highest and psychiatrists scored the lowest.

- Mental healthcare employees were found to be significantly different in others' emotion appraisal skill based on their experience. Others' emotion appraisal of mental healthcare employees is significantly different for low (M = 17.59 SD = 2.20), moderately (M = 20.09 SD = 1.69) and highly experienced (M = 24.00 SD = 2.60) employees (table 4.26). The differences in others' emotion appraisal among mental health employees with difference experience was statistically significant for all groups at 0.05 significance level as the p value is less than 0.05 for all groups. Both highly and moderately experienced employees scored very highly in others' emotion appraisal while low experienced scored a medium level.

Use of Emotion:

- Mental healthcare employees (n= 285) were at medium level in use of emotion dimension in contrast to self emotion appraisal which showed a high level score. The mean score of use of emotion dimension of employees was found to be 18.20 with a standard deviation of 3.36 which means that mental healthcare employees have a moderate skill of using emotions.

- Both male (M = 17.77, SD = 3.10) and female (M = 18.52, SD = 3.52) employees in gender category scored a medium level in use of emotion dimension. Both married (M = 18.76, SD = 3.52) and unmarried employees (M = 17.14, SD = 2.75) possessed a medium level of use of emotion skill. In occupation category psychologists (M = 20.94, SD = 2.77) obtained a high level score and all other categories including psychiatrists (M = 17.27, SD = 3.90), social workers (M = 18.00, SD = 3.95) and nurses (M = 18.17, SD = 3.07) obtained a medium level score. Both public sector (M = 18.06, SD = 3.62) and private sector employees (M = 18.25, SD = 3.26) possessed a medium level of use of emotion skill. Based on experience, highly experienced employees (M = 23.12, SD = 2.54) scored a high score while low experienced (M = 17.09, SD = 2.64) and moderately experienced employees (M = 17.36, SD = 2.37) scored a medium level. The scores given in table 4.28 reveals that highly experienced employees scored the highest level of use of emotion skill while the low experienced employees scored the lowest.

- Married employees were found to score higher in use of emotion skill than unmarried employees. Married employees scored a mean score of 18.76 (SD = 3.52) while unmarried employees scored a mean score of 17.14 (SD = 2.75). The T test statistics indicated that use of emotion skill of married employees in mental healthcare is significantly different from that of unmarried employees; $t(283) = -4.136$, $p = <0.001$.

- Psychologists (M = 20.94, SD = 2.77) scored highly in use of emotion compared to other categories. Psychiatrists (M = 17.27, SD = 3.90), social workers (M = 18.00, SD = 3.95) and nurses (M = 18.17, SD = 3.07) showed a medium level of use of emotion skill where nurses scored highest and social workers scored lowest. The difference in use of emotion skill of mental healthcare employees based on occupational designations was statistically significant at 0.05 level of significance; F (3, 281) = 5.642, p = 0.001. The Tukey Post hoc results indicated that use of emotion skill of psychologists (M= 20.94 SD = 0.2.77, p = <0.001) is significantly different from that of all other employee categories.

- The use of emotion skill of highly experienced mental healthcare employees was found to be significantly different from all other categories. Highly experienced employees (M= 23.12, SD = 2.5463) were found to be very high in use of emotion skill while low experienced (M= 17.09, SD = 2.64) and moderately experienced (M= 17.36, SD = 2.37) employees showed a medium level of use of emotion skill. As p value was less than 0.05 at 0.05 significance level psychologists were found to be significantly different from other two groups, namely moderately experienced and low experienced employees. Interestingly no any significant difference was found in use of emotion between moderately experienced and low experienced.

Regulation of Emotion:

- Mental healthcare employees were found to be at medium level in regulation of emotion dimension like that of others' emotion appraisal and use of emotion dimensions. The mean score of regulation of emotion dimension of employees was 18.37 with a standard deviation of 2.84.

- Employees in all categories other than high experienced nurse scored a medium of regulation of emotion skill. In gender category both male (M = 17.95, SD = 2.75) and female (M = 18.69, SD = 2.87) employees scored medium level in regulation of emotion dimension where female scored

higher than male. Married employees (M = 18.88, SD = 3.01) scored higher than unmarried employees (M = 17.41, SD = 2.21) where both scored a medium level score. In occupation category all scored a medium level score and psychologists (M = 19.36, SD = 2.65) scored higher than psychiatrists (M = 16.77, SD = 3.54), social workers (M = 17.00, SD = 4.14) and nurses (M = 18.82, SD = 2.24). Highly experienced employees (M = 22.33, SD = 2.02) possessed the high level of regulation of emotion skill while low experienced (M = 17.46, SD = 2.22) and moderately experienced (M = 17.71, SD = 2.30) employees possessed a medium level of regulation of emotion skill. Among all categories high experienced employees scored highest and psychiatrists scored the lowest in regulation of emotion dimension.

- Female employees (n = 163) scored highly (M = 18.69, SD = 2.87) in regulation of emotion dimension than their male counterparts (n = 122, M = 17.95, SD = 2.75). The scores of both male and female employees in regulation of emotion were at medium level. The differences of male and female employees in regulating their emotions was statistically significant; t (283) = -2.170, p = 0.031.

- Married employees were found to score high in regulation of emotion skill than unmarried employees. Married employees scored a mean score of 18.88 (SD = 3.01) while unmarried employees scored a mean score of 17.41 (SD = 2.21). The regulation of emotion skill of married employees was found to be significantly different from that of unmarried employees; t (283) = -4.248, p = <0.001.

- Employees in all designations were found to possess a medium level of regulation of emotion whereas psychologists (M = 19.36, SD = 2.65) scored the highest and psychiatrists (M = 16.77, SD = 3.54) scored the lowest. Regulation of emotion skill of psychologists (M = 19.36, SD = 2.65, p = <0.05) and nurses (M = 18.82, SD = 2.24, p = <0.05) was found to be significantly different from that of psychiatrists and social workers. No

significant difference was found in regulation of emotion skill of psychiatrists and social worker as well as psychologists and nurses. Psychologists and nurses among mental healthcare employees possessed a high level of regulation of emotion skill compared to other two categories namely psychiatrists and social workers.

- Mental healthcare employees were found to be significantly different in regulation of emotion skill based on their experience. The difference in mean score was found to be significant as the p value was less than 0.05 ($F(2, 282) = 107.853$, $p = <0.001$). The regulation of emotion skill of highly experienced mental healthcare employees was significantly different from all other categories. Highly experienced employees ($M= 22.33$, $SD = 2.02$) were found to be very high in regulation of emotion skill while low experienced ($M= 17.46$, $SD = 2.22$) and moderately experienced ($M= 17.71$, $SD = 2.30$) employees showed a medium level of regulation of emotion skill. Psychologists were found to be significantly different from other two groups, namely moderately experienced and low experience. Interestingly no any significant difference was found in regulation of emotion between moderately experienced and low experienced.

Total Emotional Intelligence

- Mental healthcare employees in Kerala were at medium level of emotional intelligence. The mean score for emotional intelligence of employees was found to be 76.29 with a standard deviation of 10.17. The mean score obtained in overall emotional intelligence scale revealed that mental healthcare employees in Kerala are at average level in appraising, monitoring, using and regulating different types of emotion.

- Psychologists and highly experienced employees possessed a high level of emotional intelligence while all other categories scored a medium level score. In gender category both male and female employees scored medium level score in total emotional intelligence where female scored higher than

male counterparts. Both married and unmarried employees possessed medium level of emotional intelligence skill but married ones scored higher than unmarried employees. In occupation category psychologists scored a high level of emotional intelligence score while psychiatrists, social workers and nurses scored an average score. In organisational sector employees from both public and private sector scored medium level score. In experience category highly experienced employees possessed a higher level of emotional intelligence while low experienced and moderately experienced employees obtained an average score. Among all categories high experienced employees scored highest and unmarried employees scored the lowest in overall emotional intelligence.

- Female employees scored high (M = 78.07, SD = 10.71) in emotional intelligence than their male counterparts (n = 122, M = 73.90, SD = 8.90). The difference in mean score of emotional intelligence based on gender was found to be statistically significant; t (283) = -3.456, p = 0.001. The results support the finding of many previous studies that females score more on emotional intelligence scale (Afolabi AO, Adesina AA, 2006; Day AL, Carroll SA, 2004; Grewal D, Salovey P, 2005). In a study Pande HS (2010) concluded that there is a difference in the mean scores of male and female employees in emotional intelligence with females scoring more.

- Married employees were found to be highly emotionally intelligent than unmarried employees. Married employees scored a mean score of 79.31 (SD = 10.66) while unmarried employees scored a mean score of 70.53 (SD = 5.80). The difference in mean score of emotional intelligence based on marital status was found to be statistically significant. The results are in line with the finding of Kalyoncu Z et al. (2012) who postulated that emotional intelligence of married individuals is higher than single individuals and the findings of Ealias, A., & George, J (2012) who established a significant differences in the mean scores of emotional intelligence based on marital status.

- No significant difference was found between emotional intelligence skill of employees from both public (M = 76.38, SD = 11.85) and private sector (M = 76.25, SD = 9.51). The difference between two sectors was not statistically significant; t (283) = 0.071, p = 0.944. Results confirmed that mental healthcare employees from both public and private sectors are moderate in emotional intelligence. The results support the findings of previous studies that there is no significant difference in emotional intelligence between the government sector employees and private sector employees (Deshwal, S. (2015), Tokpam, et al. (2015), Bhanu Priya (2018).

- The mean scores for emotional intelligence scale revealed that psychologists scored highly in emotional intelligence dimension compared to other categories. Psychiatrists, nurses and social workers showed a medium level of emotional intelligence skill where nurses scored highest and psychiatrists scored lowest. The difference in emotional intelligence skill of mental healthcare employees based on occupational designations was statistically significant; F (3, 281) = 4.534, p = 0.004. Emotional intelligence of psychologists (M = 80.57, SD = 9.78, p = <0.05) and nurses (M = 77.11, SD = 9.18, p = <0.05) was found to be significantly different from that of psychiatrists (M = 72.36, SD = 11.95).

- Mental healthcare employees were found to be significantly different in emotional intelligence skill based on their experience. Emotional intelligence levels of highly experienced, moderately experienced and low experienced mental healthcare employees were significantly different from each other. Highly experienced employees (M = 94.12, SD = 7.71) were found to be very high in emotional intelligence skill. Moderately experienced (M = 75.05, SD = 5.67) and low experienced (M = 70.79, SD = 5.41) showed a medium level of emotional intelligence skill where low experienced employees scored a lowest score. The results are consistent with the findings of Aryee, Wyatt and Stone,1996; Judge and Bretz ,1994; Judge et al., 1995;

Nabi, 1999 who considered work experience as an important variable that can affect emotional intelligence.

8.3.2 Organisational Commitment of Mental Healthcare Employees

Affective Commitment

- Mental healthcare employees in Kerala possessed a medium level of affective commitment (M = 29.01, SD = 5.30). It means that mental healthcare employees have an average level of emotional attachment with their organisation.

- In gender category male employees (M = 25.90, SD = 3.48) possessed a medium level of affective commitment and female employees (M = 31.34, SD = 5.24) scored a high level. In the category of marital status both married (M = 29.84, SD = 5.35) and unmarried employees (M = 27.42, SD = 4.85) scored a medium level affective commitment skill. In occupation category nurses (M = 31.25, SD = 4.50) scored a high level and psychologists (M = 26.78, SD = 1.84), psychiatrists (M = 23.40, SD = 2.51) and social workers (M = 23.23, SD = 3.92) scored a medium level. In the category of organisation public sector employees (M = 30.20, SD = 6.70) scored high and private sector employees (M = 28.57, SD = 4.62) scored medium. Based on experience, highly experienced employees (M = 32.12, SD = 4.88) scored high level while low experienced (M = 28.20, SD = 5.16) and moderately experienced employees (M = 28.60, SD = 5.20) scored a medium level of self affective commitment skill. The highly experienced employees scored the highest in affective commitment subscale while social workers scored the lowest among all employee categories.

- Affective Commitment of male employees (M = 25.90, SD = 3.48) and female employees (M = 31.34, SD = 5.24) were found to differ significantly; t (283) = -10.497, p = <0.001. Female employees scored a higher level of affective commitment compared to male employees who scored a medium

level of affective commitment. Female employees significantly differed from their male counter parts with a high score in affective commitment scale.

- Affective commitment skill of married employees ((M = 29.84, SD = 5.35) in mental healthcare was significantly different from that of unmarried employees (M = 27.42, SD = 4.85); t (283) = -3.849, p = <0.001. Both married and single employees scored moderately in affective commitment scale where married employees showed highest emotional attachment than unmarried ones.

- Affective commitment level was significantly different for each designation group. Psychiatrists, psychologists, social workers and nurses differed significantly in their respective affective commitment levels, F (3, 281) = 66.772, p = <0.001. Affective commitment level of nurses (M = 31.25, SD = 4.50) and psychologists (M = 26.78, SD = 1.84) were significantly different among mental healthcare employees. Nurses were found to be very highly affectively committed. Psychologists, social workers (M = 23.23, SD = 3.92) and psychiatrists (M = 23.40, SD = 2.51) possessed a medium level of affective commitment where psychologists differed significantly from others.

- Mental healthcare employees were found to be significantly different in affective commitment based on their experience. Affective commitment of highly experienced mental healthcare employees (M = 32.12, SD = 4.88) was significantly different from that of moderately (M = 28.60, SD = 5.20) and low experienced (M = 28.20, SD = 5.16) employees. The highly experienced employees scored highly in affective commitment while low and moderately experienced employees possessed a medium score in affective commitment scale.

Continuance Commitment

- Mental healthcare employees were found to be at the medium level of continuance commitment. The mean score of continuance commitment dimension of employees was 21.37 with a standard deviation of 4.10

meaning that they possess a medium level of continuance commitment towards organisation.

- Employees in all categories possess a medium level of continuance commitment. In gender category male employees (M = 22.87, SD = 3.35) are highly continuance committed than females (M = 20.24, SD = 4.25). Unmarried employees (M = 21.87, SD = 3.13) are little more continuance committed than married employees (M = 21.10, SD = 4.51). Nurses (M = 20.45, SD = 4.07) have lower continuance commitment towards their organisation compared to psychiatrists (M = 22.34, SD = 3.74), psychologists (M = 22.52, SD = 3.22) and social workers (M = 22.30, SD = 3.12). Employees in both public sector (M = 21.36, SD = 4.98) and private sector (M = 21.37, SD = 3.73) organisations scored medium level in continuance commitment. In experience category highly experienced employees (M = 20.41, SD = 5.09) possessed a low margin of continuance commitment compared to moderately (M = 21.51, SD = 4.46) and low experienced employees (M = 21.60, SD = 3.30). Among all categories male employees scored very high and female employees scored very low in continuance commitment subscale.

- Male employees (n = 122, M = 22.87, SD = 3.35) scored more in continuance commitment scale than their Female counterparts (n = 163, M = 20.24, SD = 4.25). Both male and female employees possessed a medium level of continuance commitment where the difference was found to be statistically significant.

- Nurses (M = 20.45, SD = 4.07) possessed a lesser score in continuance commitment subscale compared to psychiatrists (M = 22.34, SD = 3.74), social workers (M = 22.30, SD = 3.12) and psychologists (M = 22.52, SD = 0.3.22). Employees in all four designations held a medium level of continuance commitment. Continuance commitment level of nurses (M = 4.95, SD = 0.63) was significantly different from that of psychiatrists. No

statistically significant difference was found in the continuance commitment among psychiatrists, psychologists and social workers.

Normative Commitment

- Mental healthcare employees were at medium level of normative commitment dimension. The mean score of normative commitment dimension of employees was found to be 28.10 with a standard deviation of 4.33 which come in the range of medium level and means that mental healthcare employees have a moderate feeling of obligation towards their organisations.

- Employees in all categories possessed a medium level of normative commitment. In gender category female employees (M = 28.27, SD = 3.51) were found to be highly normatively committed than males (M = 27.87, SD = 5.24). Married employees (M = 28.29, SD = 4.05) are highly normatively committed than unmarried employees (M = 27.74, SD = 4.82). Nurses (M = 29.15, SD = 3.09) have higher normative commitment towards their organisation compared to psychiatrists (M = 22.95, SD = 5.81), psychologists (M = 29.00, SD = 4.06) and social workers (M = 28.26, SD = 3.58). Employees in public sector (M = 29.75, SD = 3.73) scored higher than private sector employees (M = 27.49, SD = 4.39). In experience category moderately experienced employees (M = 28.36, SD = 4.10) possessed a high margin of normative commitment compared to high (M = 28.10, SD = 4.36) and low experienced employees (M = 27.90, SD = 4.52). Among all categories public sector employees scored very high and psychiatrists scored very low.

- Employees from public sector (M = 29.75, SD = 3.73) possessed a higher level of normative commitment compared to the employees from private sector (M = 27.49, SD = 4.39). Scores obtained for employees in both sectors was at moderate level. The difference in between two sectors was found to be statistically significant; t (283) = 4.005, p = <0.001.

- Normative commitment of psychiatrists, psychologists, social workers and nurses was found to differ significantly. Normative commitment of psychiatrists ((M = 22.95, SD = 5.81) was significantly differed from that of all other employee categories. Psychiatrists scored vey lowest in normative commitment compared to other groups. Nurses (M = 29.15, SD = 3.09), psychologist (M = 29.00, SD = 4.06) and social workers (M = 28.26, SD = 3.58) possessed a high level of normative commitment. No significant difference was found in normative commitment of nurses, psychologists and social workers.

Total Organisational Commitment

- Mental healthcare employees in Kerala were found to be highly committed to their organisation as they scored a mean score 85.24 (SD = 11.15) in organisational commitment scale.

- Employees in the categories of nurse, public sector and high experienced scored a high level of organisational commitment and all other categories possessed a medium level. In gender category both male (M = 79.29, SD = 9.97) and female employees (M = 89.69, SD = 9.87) scored a medium level of organisational commitment where female scored higher than male counterparts. Married employees (M = 86.51, SD = 11.39) scored higher than unmarried employees (M = 82.80, SD = 10.32). In occupation category nurses (M = 90.11, SD = 8.05) possessed a higher level score in organisational commitment while psychologists (M = 80.73, SD = 7.78), psychiatrists (M = 70.47, SD = 9.55) and social workers (M = 76.80, SD = 6.98) scored a medium level score. In the category of organisation public sector employees (M = 91.61, SD = 9.75) were found to be highly committed to the organisation than private sector employees (M = 82.88, SD = 10.73). In experience category high experienced employees (M = 91.35, SD = 9.18) were highly committed to the organisation than low (M = 83.72, SD = 10.56) and moderately experienced employees (M = 84.35, SD = 11.85). Among all

categories public sector employees scored highest and psychiatrists scored the lowest in organisational commitment scale.

- Female employees (n = 163) scored very high (M = 89.69, SD = 9.87) in organisational commitment than their male counterparts (n = 122, M = 79.29, SD = 9.97). The difference in mean score was found to be statistically significant. The result was consistent with the findings of Forkuoh, S.K. et al (2014) who conducted the study to find out commitment levels of members of family business and concluded that female employees are highly committed compared to their male counterparts. Earlier it was suggested that gender can affect employees' attitude towards the organisation (Mathieu, J.E. and Zajac, D.M., 1990).

- Married employees were found to be highly organisationally committed than unmarried employees. Both married (M = 86.51, SD = 11.39) and unmarried employees (M = 82.80, SD = 10.32) scored a moderate level of organisational commitment. The difference between them was found to be statistically significant; t (283) = -2.697, p = 0.007.

- Organisational commitment of public sector employees (M = 91.61, SD = 9.75) was significantly different from organisational commitment of private sector employees (M = 82.88, SD = 10.73). Employees from public institutions were found to be highly committed to their organisation while private employees a medium level of organisational commitment; t (283) = 6.241, p = <0.001.

- Organisational commitment of psychiatrists (M = 70.47, SD = 9.55, p = <0.05) and nurses (M = 90.11, SD = 8.05, p = <0.05) was significantly different from that of other employee categories. Nurses were found highest in organisational commitment level and psychiatrists were found to be lowest. No significant difference was found in organisational commitment skill of social workers and psychologists. The present results however were found to be contrary to the findings of Khalili A, Asmavi A. (2012) who

suggested that there is no statistically significant relationship between nurses' employment status and their organisational commitment.

- Mental healthcare employees were found to be significantly different in organisational commitment skill based on their experience. Organisational commitment of highly experienced employees was significantly different from that of moderately and low experienced employees. Highly experienced employees (M = 91.35, SD = 9.18) were found to be highly committed to the organisational they work in. Moderately experienced (M = 84.35, SD = 11.85) and low experienced (M = 83.72, SD = 10.56) showed a medium level of organisational commitment. Earlier many studies have concluded that job tenure is a significant predictor of organisational commitment (Salami, S.O. 2008, Azeem, S.M. 2010, Igbal, A. 2011). The results are in line with the findings of Amangala, T.A. (2013) who concluded that years worked or tenure has an overwhelming influence on commitment.

8.3.3 Work Engagement of Mental Healthcare Employees

Vigor

- Mental healthcare employees in Kerala were found to be at medium level of vigor. The mean score in vigor subscale (M = 28.73, SD = 2.60) revealed that that mental healthcare employees have a medium level of energy and resilience while working.

- All employee categories other than psychologists, social workers and female employees scored a medium level in vigor scale. In gender category male employees (M = 29.41, SD = 2.59) scored more in vigor subscale than female employees (M = 28.22, SD = 2.49). Unmarried employees (M = 30.01, SD = 2.43) possessed a high level of vigor compared to married employees (M = 28.06, SD = 2.44) who could possess a medium level. Social workers (M = 32.03, SD = 2.58) and psychologist (M = 31.21, SD = 1.90) have higher vigor score than psychiatrists (M = 28.09, SD = 2.70) and nurses (M = 28.20, SD = 2.15) who showed a medium level of vigor.

Employees in private sector (M = 29.22, SD = 2.63) scored more in vigor than public sector employees (M = 27.41, SD = 1.99). In experience category low experienced employees (M = 29.61, SD = 2.48) possessed a high margin of vigor compared to moderately experienced (M = 28.05, SD = 2.42) and highly experienced employees (M = 27.81, SD = 2.57). Among all categories social workers scored the highest in vigor scale and public sector employees scored the lowest.

- Vigor of male employees (M = 29.41, SD = 2.59) and female employees (M = 28.22, SD = 2.49) were found to differ significantly; t (283) = 4.155, p = <0.001. Male employees scored a highest level of vigor compared to the female employees. Both male and female employees scored a moderate degree of vigor where male employees significantly differed from female employees.

- Vigor level of unmarried employees (M = 30.01, SD = 2.43) in mental healthcare is significantly different from that of married employees (M = 28.06, SD = 2.44). Unmarried employees scored highly in vigor scale while married employees scored only a medium level of vigor; t (283) = 6.373, p = <0.001.

- A statistically significant difference was established in vigor level of employees based on organisational sector; t (283) = -6.360, p = <0.001. Employees from private sector possessed a high degree of vigor compared to employees from public sector institutions. Both private sector (M = 29.22, SD = 2.63) and public sector employees (M = 27.41 SD = 1.99) scored a medium level in vigor subscale.

- Psychiatrists, psychologists, social workers and nurses differed each other significantly in their respective vigor levels; F (3, 281) = 31.226, p = <0.001. Psychiatrists' (M = 28.09, SD = 2.70) and Nurses' (M = 28.20, SD = 2.15) vigor was found to be significantly different from vigor level of psychologists (M = 31.21, SD = 1.90) and social workers (M = 32.03, SD =

2.58). No statistically significant difference was found between the vigor level of psychiatrists and nurses as well as psychologists and social workers.

- Mental healthcare employees were found to be significantly different in vigor based on their experience. Vigor level of low experienced mental healthcare employees (M = 29.61, SD = 2.48) is significantly different from that of highly (M = 27.81, SD = 2.57) and moderately experienced (M = 28.05, SD = 2.42) employees. The low experienced employees scored highly in vigor scale with mean score of 29.6 compared to highly and moderately experienced employees.

Dedication

- Mental healthcare employees were found to be at the medium level of dedication. The mean score of dedication dimension of employees was 23.31 with a standard deviation of 3.20 meaning that they possess a medium level of dedication towards the work.

- All employee categories other than unmarried employees possess a medium level of dedication in their work while unmarried employees scored a high level. In gender category male employees (M = 23.59, SD = 3.19) are more dedicated than their female counterparts (M = 23.10, SD = 3.19). Unmarried employees (M = 25.23, SD = 2.51) were found to be high in dedication dimension compared to married employees (M = 22.31, SD = 3.06). Social workers (M = 23.73, SD = 3.66) scored more in dedication subscale compared to nurses (M = 23.42, SD = 2.79), psychologists (M = 23.42, SD = 3.77) and psychiatrists (M = 22.54, SD = 4.19). The scores obtained in dedication subscale were approximately same for both public (M = 23.35, SD = 3.12) and private sector employees (M = 23.30, SD = 3.23). In experience category low experienced employees (M = 24.29, SD = 3.02) were found to be highly dedicated to the work compared to moderately experienced (M = 23.00, SD = 1.91) and highly experienced employees (M =

21.31, SD = 4.61). Among all categories unmarried employees scored the highest and high experienced mental healthcare employees scored the lowest.

- Unmarried employees were found to score high in dedication scale compared to married employees. The difference in dedication employees based on gender was statistically significant; t (283) = 8.359, p = <0.001.

- Mental healthcare employees were found to be significantly different in dedication based on their experience. Low experienced (M = 24.29 SD = 3.02), highly experienced (M = 21.31 SD = 4.61) and moderately experienced (M = 23.00 SD = 1.91) mental healthcare employees possessed a medium level of dedication. Among three experience categories low experienced employees scored the highest score in dedication subscale and highly experienced employees scored the lowest score. The difference between both scores was statistically different as per Post Hoc test results.

Absorption

- Mental healthcare employees were at medium level of absorption dimension such like in the vigor subscale. The mean score of absorption dimension of employees was found to be 26.64 with a standard deviation of 4.38 which come in the range of medium level and means that mental healthcare employees are moderately engrossed or immersed in their assigned work.

- All employee categories in mental health sector possess a medium level of absorption in assigned work. In gender category both male (M = 26.27, SD = 4.33) and female (M = 26.92, SD = 4.40) employees showed a medium level of absorption with approximately equal scores. Unmarried single employees (M = 29.83, SD = 4.16) were found to be highly absorbed in work than married employees (M = 24.97, SD = 3.48). Employees in all occupational designations showed a medium level of absorptions where psychologists (M = 27.36, SD = 4.36) and nurses (M = 27.54, SD = 3.83) scored higher than social workers (M = 20.07, SD = 4.33) and psychiatrists (M = 26.20, SD = 3.38). Employees in public sector (M = 27.16, SD = 5.11) scored little higher

than private sector employees (M = 26.45, SD = 4.07). In experience category low experienced employees (M = 29.21, SD = 3.86) possessed a high margin of absorption compared to highly experienced (M = 24.06, SD = 4.11) and moderately experienced employees (M = 24.59, SD = 3.20). Among all categories unmarried employees scored the highest and social workers scored the lowest'.

- The difference in absorption scores of mental healthcare employees based on marital status was found to be statistically significant; t (283) = 13.142, p = <0.001. Unmarried single employees (M = 29.83, SD = 4.16) scored a higher level of absorption compared to married employees (M = 24.97, SD = 3.48). Unmarried employees scored a higher margin of absorption dimension of work engagement while married employees scored a medium level.

- Mental healthcare employees were found to be significantly different in absorption dimension of work engagement based on designations. Absorption level of social workers (M = 20.07, SD = 4.33, p = <0.001) was found to be significantly different from that of psychologists (M = 27.36, SD = 4.36), psychiatrists (M = 26.20, SD = 3.38) and nurses (M = 27.54, SD = 3.83). No statistically significant difference was found among the absorption levels of psychiatrists, psychologists and nurses. Among all employee designations nurses and psychologists scored highly in absorption dimension while social workers scored lowest.

- Mental healthcare employees were found to be significantly different in absorption dimension of work engagement based on their experience. Absorption level of low experienced employees was significantly different from the absorption scores of the highly and moderately experienced employees. Low experienced mental healthcare employees (M = 29.21 SD = 3.86) scored highly in absorption subscale of work engagement than highly experienced employees (M = 24.06 SD = 4.11) and moderately experienced employees (M = 24.59 SD = 3.20). Employees in all three experience categories possessed a medium level of absorption.

Total Work Engagement

- Mental healthcare employees in Kerala were found to be at medium level of work engagement. The mean score for work engagement of employees was found to be 78.69 with a standard deviation of 6.81 meaning that they are moderately engaged in their work.

- All employee categories other than unmarried mental healthcare employees possessed a medium level of work engagement. In gender category male employees (M = 89.29, SD = 6.63) were found to be highly engaged than female employees (M = 78.25, SD = 6.92). Unmarried single employees (M = 85.08, SD = 5.13) scored high level in work engagement scale while married employees (M = 75.35, SD = 4.93) scored a medium level. In occupation category psychologists (M = 82.00, SD = 7.95) were found to be highly work engaged than nurses (M = 79.17, SD = 6.17), psychiatrists (M = 76.84, SD = 7.99) and social workers (M = 75.84, SD = 7.03). In the category of organisation both private (M = 81.08, SD = 7.25) and public sector employees (M = 77.93, SD = 5.41) scored a medium level of work engagement score. In the experience category low experienced employees (M = 83.12, SD = 6.25) could score a higher level of work engagement score compared with moderately experienced (M = 75.64, SD = 3.91) and highly experienced employees (M = 73.18, SD = 5.51).

- Male employees possessed a higher level work engagement compared to female employees where both scored a medium level. The difference in mean score of work engagement based on gender was statistically significant; t (283) = 4.350, p = 0.003. Consistently with the present findings Ugwu (2013) have reported higher levels of work engagement among male employees than female ones in Nigerian sample.

- Work engagement of unmarried employees in mental healthcare was found to be significantly different from that of married employees; t (283) = 12.461, p = <0.001. Unmarried single employees were highly work engaged

than married employees. The present result is consistent with the finding of Kong (2009) who reported significantly higher levels work engagement including vigour, absorption and dedication among unmarried single employees compared to married employees.

- Work engagement of private sector employees (M = 81.08, SD = 7.25) was significantly different from work engagement level of public sector employees (M = 77.93, SD = 5.41). Employees from both sectors possessed a medium level of work engagement where private employees engaged highly in their works than public sector employees.

- The difference in work engagement skill of mental healthcare employees based on occupational designations was found to be statistically significant. Work engagement level of psychologists (M = 4.83, SD = 0.37, p = <0.05) was found to be significantly different from work engagement levels of psychiatrists (M = 4.56, SD = 0.42) and social workers (M = 4.61, SD = 0.33). No significant difference was found in the scores of psychiatrists, social workers and nurses as well as psychologists and nurses.

- Mental healthcare employees were found to be significantly different in work engagement skill based on their experience. Low experienced mental healthcare employees (M = 4.84, SD = 0.36, p = <0.05) scored a higher level of work engagement compared to moderately and highly experienced employees. Highly experienced employees were found to score the lowest among three categories. Present results are in line with many previous studies that indicated an inverse relationship between experience (tenure) and work engagement (Avery et al, 2007; Buckingham, 2001; Robinson et al., 2004).

8.3.4 Inter Linkages and Correlations

Emotional Intelligence and Organisational Commitment

- Emotional Intelligence was found to be positively correlated with Organisational Commitment (r = 0.428, p = <0.001). Emotional Intelligence has a positive and significant correlation with AC (r = 0.377, p = <0.001), CC (r = 0.400, p = <0.001) and NC (r = 0.124, p = 0.036). EI was highly correlated with CC followed by AC and NC where NC is weakly correlated with EI.

- SEA was found to be significantly positively correlated with overall OC (r = 0.355, p = <0.001) and its two components; AC (r = 0.398, p = <0.001) and CC (r = 0.359, p = <0.001). The correlation between SEA and NC component was found to be insignificant (r = 0.034, p = 0.570). SEA was highly correlated with AC compared to other two components of organisational commitment.

- OEA was positively correlated with overall OC (r = 0.336, p = <0.001) and its three subcomponents; AC (r = 0.304, p = <0.001), CC (r = 0.335, p = <0.001) and NC (r = 0.126, p = 0.033). The correlations in all cases were found to be significant as p value is less than 0.05. OEA was highly correlated with CC compared to other components while the correlation between OEA and NC was found to be very weak.

- UOE was positively correlated with overall OC (r = 0.216, p = <0.001) and its two subcomponents; AC (r = 0.188, p = 0.001) and CC (r = 0.218, p = <0.001). The correlation of UOE with AC and CC was significant as p value is less than 0.05 and the correlation between UOE and NC was found to be insignificant (r = 0.086, p = 0.146). UOE was highly correlated with CC compared to other components while the correlation between UOE and NC was found to be very low.

- The correlation of ROE with AC, CC and NC was found to be significant as p value is less than 0.05. ROE was highly correlated with CC compared to other components while the correlation between ROE and NC was found to be weak.

Emotional Intelligence and Work Engagement

- Emotional Intelligence was positively correlated with Work Engagement (r = 0.317, p = <0.001). Correlation was found to be very moderate and significant as the p value is less than 0.05. Vigor (r = 0.263, p = <0.001) and absorption (r = 0.231, p = <0.001) have a positive and significant correlation with EI while dedication (r = -0.148, p = 0.012) has a negative and significant correlation. EI was found to be highly correlated with vigor followed by absorption.

- SEA was found to be weakly and insignificantly correlated with overall WE (r = 0.086, p = 0.146). SEA was found to be significantly positively correlated with vigor (r = 0.240, p = <0.001) and absorption (r = 0.228, p = <0.001) and significantly negatively correlated with dedication (r = -0.230, p = <0.001).

- The correlation between OEA and total work engagement was found to be positive and insignificant (r = 0.0.51, p = 0.388). OEA has a weak positive correlation with vigor (r = 0.124, p = 0.037) and absorption (r = 0.165, p = 0.005) and negative significant correlation with dedication (r = -0.147, p = 0.013).

- The weak and positive correlation between UOE and total work engagement was found to be insignificant (r = 0.113, p = 0.057). The correlation of UOE with vigor (r = 0.241, p = <0.001) was positive and significant and the correlation between UOE and absorption (r = 0.055, p = 0.358) was found to be positive and insignificant. The correlation between UOE and dedication (r = -0.038, p = 0.522) was negative and insignificant.

- Regulation of Emotion (ROE) was positively and significantly correlated with Work Engagement (r = 0.245, p = <0.001). ROE was positively correlated with two subcomponents, Vigor (r = 0.278, p = <0.001) and Absorption (r = 0.316, p = <0.001) and the correlation was significant in both cases. ROE is found to be negatively correlated with dedication (r = -0.066, p = 0.268) where correlation is insignificant.

Organisational Commitment and Work Engagement

- Organisational Commitment was slightly and positively correlated with Work Engagement (r = 0.144, p = 0.003). Vigor (r = 0.157, p = 0.008) and absorption (r = 0.158, p = 0.007) had a positive and significant correlation with total WE while dedication (r = 0.114, p = 0.054) has a positive but insignificant correlation.

- AC was found to be positively correlated with overall work engagement (r = 0.074, p = 0.211) and the correlation was insignificant as the p value is less than 0.05. The correlation was also positive and significant between AC and vigor (r = 0.178, p = 0.003). The correlation between AC and dedication (r = 0.011, p = 0.853) and absorption (r = 0.13, p = 0.823) was positive and insignificant.

- The correlation of CC with overall work engagement (r = 0.109, p = 0.065) was found to be positive and insignificant. The correlation of CC with vigor (r = 0.100, p = 0.092), dedication (r = 0.070, p = 0.236) and absorption subcomponents (r = 0.100, p = 0.092) was also positive and insignificant.

- NC was positively correlated with overall work engagement (r = 0.275, p = <0.001) and its three subcomponents; vigor (r = 0.078, p = 0.187), dedication (r = 0.240, p = <0.001) and absorption (r = 0.332, p = <0.001). The correlation was significant in all cases other than NC and vigor.

8.3.5 Analysis of Effects

- The standardised path coefficient or regression effect of emotional intelligence on organisational commitment was found to be 0.48. The value clearly indicated that every one unit increase in emotional intelligence will result in a 0.48 unit increase in organisational commitment of mental healthcare employees. More importantly, the effects of emotional intelligence on organisational commitment was found to be positive and significant ($p = <0.001$).

- The analysis of the path diagram revealed that the regression effect of emotional intelligence on work engagement is positive. The beta coefficient value was found to be 0.34 and p value is less than 0.005. The results indicated that every one unit increase in emotional intelligence would results 34% increase in work engagement.

- The analysis of the path diagram revealed that the regression effect of work engagement on organisational commitment is positive. The standardised beta coefficient value was found to be 0.12 and p value is less than 0.005. A significant positive relationship and regression effect between work engagement and organisational commitment was established. The results indicated that every one unit increase in work engagement would results 12% increase in organisational commitment.

8.3.6 Analysis of Mediation Effects

- Work engagement was found to partially mediate the relationship between emotional intelligence and organisational commitment. Work engagement after entering the model as a mediator reduced the effect of emotional intelligence on organisational commitment. The indirect effect of emotional intelligence on organisational commitment through work engagement was found to be 0.43. The beta coefficient for emotional intelligence was decreased from 0.48 to 0.43 due to the mediating effect of work engagement. The mediation of work engagement in the relationship between emotional

intelligence and organisational commitment was not a perfect mediation. It was only a partial mediation as the direct effect of independent variable on dependent variable was found to be significant even after entering the mediator to the model. The direct effect of emotional intelligence on organisational commitment was still significant after work engagement was entered to the model as a mediator.

- Organisational commitment was found to partially mediate the relationship between emotional intelligence and work engagement. Organisational commitment after entering the model as a mediator reduced the effect of emotional intelligence on work engagement. The indirect effect of emotional intelligence on work engagement through organisational commitment was 0.29. The beta coefficient for emotional intelligence was decreased from 0.34 to 0.29 due to the mediating effect of organisational commitment. However the mediation of organisational commitment in the relationship between emotional intelligence and work engagement was not a perfect mediation. It was only a partial mediation as the direct effect of independent variable on dependent variable was found to be significant even after entering the mediator to the model. The direct effect of emotional intelligence on work engagement was still significant after organisational commitment was entered to the model as a mediator.

8.4 Conclusions

Several studies have supported the idea that emotional intelligence like constructs might have a positive impact on many organisational outcomes that could add value to the organisation. Dulewicz and Higgs (2000) rightly pronounced that emotional intelligence can impact on work success where work success is defined as advancement in one's work organisation. Cote' and Miners (2006) demonstrated that emotional intelligence could predict the task performance and organisation citizenship behaviour because of its interactive effect with cognitive intelligence. Wong and Law (2002) found in that emotional intelligence is significantly correlated with job performance, and that the relationship is moderated by emotional labour.

According to the metaanalysis of Van Rooy and Viswesvaran (2004), emotional intelligence is a valuable predictor of performance and a prospect construct that could be worthy of future research.

Constructs like emotional intelligence, organisational commitment and work engagement have gained more interest and popularity in the work environment after the academic community had successfully recognised the importance and advantages these constructs in shaping a workforce with high levels of positive energy. Over the last decade these concepts have gradually been introduced and installed into the various workplace situations. Empirical studies have highlighted the value of the these construct within the workplace and indicated that such constructs could be effective in reducing levels of occupational stress and improving health, well-being and performance. Meanwhile the research linking these constructs in Indian healthcare work situations especially in mental healthcare sector is very scarce and the current study explore the inter linkages among these constructs in mental healthcare sector. The current study therefore evaluated the levels of emotional intelligence, organisational commitment and work engagement for mental healthcare employees, its regressive effects and interrelationships and the impact of different demographic variables on it.

The present study concluded that mental healthcare employees in Kerala have a high level of organisational commitment and a medium level of emotional intelligence and work engagement. Employees in the categories of female, married and highly experienced were found to score high in emotional intelligence and organisation commitment scales while male, unmarried and low experienced categories scored high in work engagement scale. The results are consistent with many previous studies that examined the levels of emotional intelligence, organisational commitment and work engagement and its association with demographic variables.

Emotional intelligence was found to be positively correlated with organisational commitment and work engagement and the correlation between organisational commitment and work engagement was found to be weak and

positive. The results of the study concluded that emotional intelligence has a positive regressive effect on both organisational commitment and work engagement. The regressive effect of work engagement on organisational commitment was also found to be positive. Present results were in line with many previous results that established positive and significant relationship between emotional intelligence and organisational commitment, emotional intelligence and work engagement and work engagement and organisational commitment. Emotional intelligence was related with job outcomes such as job satisfaction and organisational commitment (Wong and Law, 2002) and employees with high emotional intelligence were found to be more committed to their organisation (Nikolaou and Tsaousis, 2002). In a study Ravichandran, Arasu and Kumar (2011) found a significant linear relationship between overall emotional intelligence and overall work engagement behaviour. Thor (2012) stated that emotional intelligence can predict work engagement and both variables are moderately correlated. In another recent study Aulia. (2016) found that work engagement has a significant positive relationship with organisational commitment. Bakker and Demerouti (2008) and Field and Buitendach (2011) have posited that "work engagement has a correlational and predictive relationship with organisational commitment".

The present study hypothesised the mediation of work engagement in relationship between emotional intelligence and organisational commitment and mediation of organisational commitment in relationship between emotional intelligence and work engagement. The results concluded that work engagement could partially mediate the relationship between emotional intelligence and organisational commitment. Organisational commitment was also found to mediate partially the relationship between emotional intelligence and work engagement.

8.5 Suggestions

Based on the above findings and conclusions the following suggestions were made for improving the quality of mental healthcare services. The suggestions are mainly related with the constructs of emotional intelligence, organisational commitment and work engagement.

- Mental healthcare employees were found to be at a medium level of emotional intelligence. They scored a medium score in Others' Emotion Appraisal, Use of Emotion and Regulation of Emotion subscales. Many research studies have concluded that high levels of emotional intelligence could lead to the positive outcomes at work place both at organisational and individual levels. Therefore mental healthcare institutions both in private and publics spheres could thrive hard to enhance the emotional intelligence skill of their employees in order to improve the quality of care and service they provide. They should modify a full scale initiative to develop emotional intelligence skill in their employees.

- Valid and focussed research studies have supported the fact that emotional intelligence skills and competencies can be trained and learned. Mental healthcare institutions would come forward to educate their employees in EQ skills by conducting training programmes, workshops and seminars and initiating innovative methods to inculcate emotional intelligence competencies in their workforce. The training modules should be customised for mental healthcare sector by incorporating the major emotional intelligence skills such as: self emotion appraisal, others' emotion appraisal, use of emotion, regulation of emotion, empathy towards patients, motivation, social skills and communication skills.

- Emotional intelligence and allied topics are thought to be critical ingredients of HR functions like selection and training. Scholars have identified emotional intelligence as an important determinant in selection and recruitment processes. Fox and Spector (2000) have claimed that emotional intelligence is very important in selection and recruitment processes. Thus, HR personnel in mental healthcare institutions should give more care and attention to consider emotional intelligence competencies in their selection and recruitment processes. They should adopt better selection and recruitment methods that incorporate the assessment of emotional intelligence skills such as ability to evaluate, use and control emotions.

- Mental healthcare employees have scored a medium level only in three subscales of organisational commitment namely affective commitment, continuance commitment and normative commitment. Healthcare service provided by employees with higher organisational commitment is believed to be significantly better than others. Therefore mental healthcare institutions both in private and publics sector should take necessary steps to improve the organisational commitment skills of their employees. They have to develop practical and meaningful strategies to enhance the organisational commitment level of their employees.

- The study results concluded that mental healthcare employees are at a medium level in overall work engagement and its three subscales namely Vigor, Dedication and Absorption. Earlier research studies have indicated that high levels of work engagement in employees will results in more productive outputs at workplace. It is highly suggested that mental healthcare institutions should formulate effective strategies to improve the work engagement level of its workforce to ensure the service delivery of fully engaged employees with more energy and enthusiasm.

- Present study has established significant differences in the scores of emotional intelligence, organisational commitment and work engagement based on demographic variables like gender, marital status and experience. Valid associations have been established among these constructs and demographic variables. Thus mental health authorities have to take into account these demographic differences while designing newer strategies by following different approaches for diverse demographic groups of employees. They should adopt more flexible and suitable strategies while planning and developing interventions and initiatives related with these constructs taking into account tenure, gender and organisational and occupational differences. Thus it is necessary for mental health institutions to devote reasonable time and effort to understand employees' different demographic factors.

- It is recommended that training and developing of emotional intelligence skills should be incorporated into the nursing curricula at academic levels. This will help in improving the level of emotional intelligence in nurses and will benefit therapeutic relationships in later professional life.

- The results of the study concluded that emotional intelligence has a positive regressive effect on both organisational commitment and work engagement. The regressive effect of work engagement on organisational commitment was also found to be positive. Further organisational commitment and work engagement was found to partially mediate the relationships with emotional intelligence. Mental healthcare institutions and different stakeholder in this sector should take care of these correlations and inter linkages in their organisational and occupational decisions.

- Statistical reports show a widening gap between the available and required manpower in mental health sector. Presently available mental health employees are inadequate to meet the mental health needs of the large population. This treatment gap can be mitigated or reduced through the integration of mental health services to the primary healthcare institutions. So authorities in private and public sectors should take necessary steps to ensure the availability of and access to cost-effective treatment of common mental disorders at the primary health care level.

- Most of the people are unaware of the mental health issues and problems and can’t identify the mental health issues they are suffering from. To overcome easily, mental health disorders have to been diagnosed and treated clinically at the earliest time. Thus authorities should come forward to conduct mental health awareness programs and campaigns to increase the mental health knowledge of publics. Governments should promote community participation in the mental health services through improving the mental health literacy rate.

8.6 Suggestions for Further Studies

- Studies can be conducted by considering HR variables and psychological aspects other than EI, OC and WE.
- Comparative studies can be undertaken by assessing the emotional intelligence and HR outcomes of mental health employees from other states of India.
- Comparative studies can be conducted by exploring the inter linkages among EI, OC and WE of employees in general health sectors other than mental health sector.

REFERENCES

Afolabi A.O., Adesina A.A. (2006). Influence of job frustration, narcissism and demographic variables on attitudes towards professional ethical behavior among Nigerian police officers. *African Journal of Psychological Study Society*, 9, 37 - 45.

Amangala, T.A. (2013) The Effects of Demographic Characteristics on Orgnaisational Commitment: A Study of Salespersons in the Soft Drink Industry in Nigeria. *European Journal of Business and Management*, 5, 109-118.

Aryee, S., Wyatt, T., & Stone, R. (1996). Early career outcomes of graduate employees: The effect of mentoring and ingratiation. *Journal of Management Studies*, 33, 95-118.

Avery, D. R., McKay, P. F., & Wilson, D. C. (2007). Engaging the aging workforce: The relationship between perceived age similarity, satisfaction with coworkers, and employee engagement. *Journal of Applied Psychology*, 92(6), 1542–1556.

Azeem, S.M. (2010) Personality Hardiness, Job Involvement and Job Burnout among Teachers. *International Journal of Vocational and Technical Education*, 2, 36-40.

Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory (EQ-i). In R. Bar-On and J. D. A. Parker (Eds.), *Handbook of emotional intelligence*. San Francisco: Jossey-Bass.

Bhanu Priya. (2018). Emotional Intelligence: A Study on Public and Private Sector Bank Managers, *International Journal of Creative Research Thoughts*, 209–216.

Buckingham, M. (2001, October). What a waste. *People Management*, 11, 36-39.

Cote', S., & Miners, T.H. (2006). Emotional intelligence, cognitive intelligence, and job performance. *Administrative Science Quarterly, 51*(1), 1-28.

Day A.L., Carroll S.A. (2004). Using an ability-based measure of emotional intelligence to predict individual performance, group performance, and group citizenship behaviors. *Personality and Individual Differences*, 36, 1443-1458.

Deshwal, S. (2015). A Comparison of Emotional Intelligence between Government and Private Sector Employees. *International Journal of Applied Research* 1 (4), 177 – 178.

Dulewicz, V. & Higgs, M. J. (2000). Emotional Intelligence: A review and evaluation study. *Journal of Managerial Psychology*, *15*(4), 341-372.

Ealias, A., & George, J. (2012). Emotional intelligence and job satisfaction: A Correlational study. *Research Journal of Comerce & Behavioural Science*, 1 (4), 37 - 42.

Forkuoh, S. K., Affum-Osei, E., Osei, M. A. and Addo Yaw, V. J. (2014). Employees' Commitment and Growth of Family Businesses. *International Journal of Economics, Commerce and Management*, 2, 1 - 14.

Grewal, D., Salovey, P. (2005). Feeling smart: the science of emotional intelligence. *American Science*, 93, 330.

Herman, C. (2012). Developing Emotional Intelligence for Increased Work Engagement, Organisational Commitment, and Satisfaction with Work Life. Stellenbosch University.

Igbal, A. (2011) The Impact Assessment of Demographic Factors on Faculty Commitment in the Kingdom of Saudi Arabia Universities. *Journal of College Teaching & Learning*, 8, 1-13.

Judge, T. A., & Watanabe, S. (1994). Individual differences in the nature of the relationship between job and life satisfaction. *Journal of Occupational and Organisational Psychology*, 67, 101–107.

Judge, T. A., Erez, A. and Martocchio, J. J. (1995, May). 'The effects of negative affectivity and selfdeception on the relationship between the reporting of stress and

health complaints', *Paper presented at the Society for Industrial and Organisational Psychology convention*, Lake Buena Vista, FL.

Kalyoncu Z., Guney, S., Arslan, M., Guney, S., & Ayranci, E. (2012). Analysis of the relationship between emotional intelligence and stress caused by organisation: A study of nurses. *Business Intelligence Journal*, 5 (2), 334 - 346.

Khalili A, Asmavi A. (2012). Appraising the impact of gender differences on organisational commitment: Empirical evidence from a private SME in Iran. *International Journal of Business and Management*. 7(5), 100-10.

Kong, Y. (2009). A study on the job engagement of company employees. *International Journal of Psychological Services*, 1(2), 65-68.

Mathieu, J.E. and Zajac, D.M. (1990) A Review and Meta-Analysis of the Antecedent, Correlates, and Consequences of Oganisational Commitment. *Psychological Bulletin*, 108, 171-194.

Nabi, G. R. (1999). An investigation into the differential profile of predictors of objective and subjective career success. *Career Development International*, 4, 212 - 224.

Pande, HS. (2010). Evaluating characteristics and emotional intelligence among workers in organisations in the state of Rajasthan. *Int Res J*, 1, 3-6.

Robinson, D., Perryman, S., & Hayday, S. (2004). *The drivers of employee engagement*. Brighton: Institute for Employment Studies.

Salami, S.O. (2008) Demographic & Psychological Factors Predicting Organisational Commitment among Industrial Workers. *Anthropologis*t, 10, 31-38.

Tokpam, Rojina., Saikia, Jinamoni. and Borah, Tulika. (2015). Emotional intelligence of adults working in government and non - government organisations. *Adv. Res. J. Soc. Sci.*, 6 (1), 77-81.

Ugwu, F. O. (2013). Work Engagement In Nigeria: Adaptation of Utrecht Work Engagement Scale for Nigerian Samples. *International Journal of Multidisciplinary Academic Research* 1(3).

Van Rooy, D.L., & Viswesvaran, C. (2004). Emotional Intelligence: A meta-analytic investigation of predictive validity and normological net. *Journal of Vocational Behaviour, 65*, 71-95.

Wong, C., & Law, K.S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The Leadership Quarterly, 13*, 243-274.

BIBLIOGRAPHY

Books:

Albrecht, S. L. (2010a). Handbook of employee engagement: Perspectives, issues, research and practice. Cheltenham: Edward Elgar.

Bar-On, R. (1997). *The Emotional Intelligence Inventory (EQ-I)*: Technical manual. Toronto: Multi-Health Systems.

Bar-On, R. (2002). *Bar-On Emotional Quotient Inventory: A measure of Emotional Intelligence.* New York: Multi-Health Systems.

Bar-On, Reuven, Parker, & James, D.A. (2000). *The handbook of emotional intelligence.* New York: Jossey-Bass.

Brandburn, N.M. (1969). *The structure of psychological well-being*. *Chicago: Aldine.*

Cohen, A. (2003): *Multiple commitments in the workplace.* Mahwah, NJ: Lawrence Erlbaum Associates.

Cooper, D.R. & Emory, C.W. (1995). *Business Research Methods*. 5th edition. Chicago: Irwin, R.G. Inc.

Cooper, R.K., & Sawaf, A. (1997). *Executive EQ: Emotional intelligence in leaders and organisations*. New York: Grosset/Putnam.

Csikzentmihalyi, M. (1975). *Beyond boredom and ausciety*, San Francisco: Jossey Boss.

Cummings, T., & Worley, C. (2005). *Organisation development and change* (8th ed.). Mason, OH: Thompson-Southwestern College.

Epstein, S. (1998). *Constructive thinking: The key to emotional intelligence*. New York: Praeger.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.

Goffman, E. (1961). *Encounters: Two studies in the sociology of interaction*. Oxford England: Bobbs-Merrill.

Goleman, D. (1995). *Emotional intelligence*. New York: Bantam Books.

Goleman, D. (1996). *Emotional Intelligence: Why it can matter more than IQ*. London: Bloomsbury Publishing.

Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books.

Hayduk, L.A. (1987). *Structural equation modeling with LISREL: Essentials and Advances*. Baltimore: John Hopkins.

Howell, D.C. (2004). *Fundamental Statistics: for the behavioural sciences* (5th ed.). Thompson Learning, Inc., Belmont CA 94002: USA.

James K. Harter, F. L. (2003). *Employee Engagement, Satisfaction, and Business-Unit-Level Outcomes: A Meta-Analysis.* Omaha, NE: The Gallup Organisation.

Jöreskog, K. & Sörbom, D. (2001). *LISREL 8: User's reference guide*. Chicago: Scientific Software International Inc.

Klausner, A. (1997). *Review of raising your emotional intelligence* by Jeanne Segal

Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.

Madigan, M., Norton, J. & Testa, I. (1999). *The Quest for Work ñ Life Balance*. Rogers Media.

Maslach, C., Jackson, S.E., & Leiter, M. (1996). *Maslach Burnout Inventory: Manual*, 3rd ed. Consulting Psychologists Press, Palo Alto, CA.

Maslach, C., & Leiter, M. (1997). *The truth about burnout*. Jossey-Bass, San Francisco.

Mayer, J. D., & Salovey, P. (1997). *What is emotional intelligence?* New York: Basic Books.

McClelland, D.C. (1975). *Power: The inner experience*. New York: Irvington Press.

Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage Publications.

Morrow, P. C. (1993). *The Theory and Measurement of Work Commitment*, JAI Press Inc., Greenwich, CT.

Mowday, R.T., Porter, l.W. and Steers, R.M. (1982), *Employee Organisational Linkages* Academy Press, New York

Mullins, L. (1999). *Management and Organisational Behaviour*, 5th Edition. Portsmouth: Pitman Publishing.

Myers, D.G. (1998). *Psychology*, 5th Ed. NY: Worth Publishers

Newstrom, J. W. and Davis, K. (2002). *Organisational Behaviour. "Human Behaviour at Work.* 11th Edition: New Delhi Tata Mcgraw - Hill Publishing Company Limited.

Newton, R. R., Rudestam, K. E. (1999). *Your statistical consultant: Answers to your data analysis questions*. Thousand Oaks, CA: Sage.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.

O'Malley M (2000), *Creating commitment*, John Wiley & Sons. Chichester

Pareek, U. (2004), *Understanding Organisational Behaviour*, Oxford University Press, New Delhi.

Salovey, P., & Sluyter, D. J. (Eds.). (1997). *Emotional development and emotional intelligence: Educational implications.* New York: Basic Books.

Scottish Executive Social Research. (2007). *Employee engagement in the public sector: A review of literature*. Edinburgh.

Sekaran, U. (2006). *Research Methods for Business: A Skill Building Approach.* (4ed.). New Delhi: Sharda Ofsett Press

Seligman, Martin E.P. (1991). *Learned Optimism: How to Change Your Mind and Your Life*. New York, NY: Pocket Books.

Sparrow, T. & Knight, A. (2006). *Applied E.I: The Importance of Attitudes in Developing Emotional Intelligence*. West Sussex, England, John Wiley & Sons Ltd.

Stangor, C. (2004), *Research Methods of the Behavioural Sciences (2nd ed.).* New York: Houghton Mifflin Company.

Tabachnick, B. G. and Fidell, L. S. (2001) *Using Multivariate Statistics*. 4th Edition, Allyn and Bacon, Boston.

Terre Blanche, M., & Durrheim, K. (1999). *Research in practice*, Cape Town: University of Cape Town Press.

Van Jaarsveld, P. (2003). *The Heart of a Winner*. Wellington: Paarl Print.

Williams, D. (1994); *Leadership for the 21st Century: Life insurance leadership study*. Boston: Hay Group

Journals, Articles, Working Papers and Reports:

Abraham, R. (2000). The role of job control in emotional dissonance and emotional intelligence outcome relationships. *The Journal of Psychology*, 134, 169 - 184.

Afolabi A.O., Adesina A.A. (2006). Influence of job frustration, narcissism and demographic variables on attitudes towards professional ethical behavior among Nigerian police officers. *African Journal of Psychological Study Society,* 9, 37 - 45.

Aghdasi, S., Kiamanesh, A. R., Ebrahim, A. N. (2011). Emotional Intelligence and organisational commitment: testing the mediatory role of occupational stress and job satisfaction. *Procedia social and Behavioural Sciences*, 29, 1965-1976

Akerjordet K, S. E. (2004). Emotional Intelligence in Mental Health Nurses Talking about Practice. *International Journal of Mental Health Nursing, 13* (3), 164-70.

Al Hussami, M. (2009). Predictors of nurses' commitment to health care organisations. *Australian Journal of Advanced Nursing*, 26 (4), 36-48.

Al-Aameri, A. S. (2000). Job satisfaction and organisational commitment for nurses. *Saudi Medical Journal*, 21 (6), 531-535.

Alarcon, G., Lyons, J. B., & Tartaglia, F. (2010). Understanding predictors of engagement within the military. *Military Psychology*, 22(3), 301.

Albrecht, S. L. (2010a). Employee engagement: 10 key questions for research and practice. In S. L. Albrecht (Ed.), *Handbook of employee engagement: Perspectives, issues, research and practice* (pp. 3–19). Cheltenham: Edward Elgar.

Ali Abbaas Albdour, I. I. (2014). Employee Engagement and Organisational Commitment: Evidence from Jordan. *International journal of business*, 19 (2), 192-212.

Allen, N. J. & Meyer, J. P. (1993). Organisational commitment: evidence of career stage effects. *Journal of Business Research*, 26, 49-61.

Allen, N. J. & Meyer, J. P. (1996). Affective, continuance and normative commitment to the organisation: An examination of construct validity. *Journal of vocational Behaviour*, 49, 252-276.

Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organisation. *Journal of Occupational Psychology*, 63, 1–18.

Allen, N. J., & Meyer, J. P. (2000). Construct validation in organisational behaviour research: The case of organisational commitment. In R. D. Goffin & E. Helmes (Eds.), *Problems and solutions in human assessment: Honouring Douglas N. Jackson at seventy*. Norwell, MA: Kluwer.

Allen, N. J., & Smith, J. (1987, June). *An investigation of "extra-role" behaviours within organisations.* Paper presented at the annual meeting of the Canadian Psychological Association, Vancouver, British Columbia.

Altindis, S. (2011). Job motivation and organisational commitment among the health professionals: A questionnaire survey. *African Journal of Business Management*, 5 (21), 8601-8609.

Altun, I. (2002, May). Burnout and nurses' personal and professional values. *Nursing Ethics*, 9 (3).

Amangala, T.A. (2013) The Effects of Demographic Characteristics on Orgnaisational Commitment: A Study of Salespersons in the Soft Drink Industry in Nigeria. *European Journal of Business and Management*, 5, 109-118.

Ameneh Aghabozorgi, M. A. (2014). Impact of Emotional Intelligence on Organisational Commitment of Nurses in The Public Hospitals of Sanandaj. *Indian Journal of Fundamental and Applied Life Sciences*, 120-127.

Anand Nagrecha, S. S. (2014, January). Emotional Intelligence: Concept and Application in Indian Context. *Indian Journal of Applied Research, 4*(1), 296-297.

Angel, H. L. & Perry, J. L. (1981). An empirical assessment of organisational commitment and organisational effectiveness. *Administrative Science Quarterly, 26*(1), 1-14.

Antony, J. M. (2013). The Influence of Emotional Intelligence on Organisational Commitment and Organisational Citizenship Behaviour. *International Journal of Social Science & Interdisciplinary Research*, 110-115.

Aryee, S., Wyatt, T., & Stone, R. (1996). Early career outcomes of graduate employees: The effect of mentoring and ingratiation. *Journal of Management Studies*, 33, 95-118.

Aulia. (2016). Emotional Intelligence, Work Engagement, and Organisational Commitment of Indonesian Army Personnel. *Indonesian Psychological Journal*, 2016, 31(3), 124 - 131.

Austin, E.J., Saklofske, D.H. & Egan, V. (2005). Personality, well-being and health correlates of trait emotional intelligence. *Personality and Individual Differences,* 38(3). 547-558.

Auxiliadora Duran, N. E. (2004). Self-Reported Emotional Intelligence, Burnout and Engagement among Staff in Services for People with Intellectual Disabilities. *Psychological Reports, 95*, 386-390.

Avery, D. R., McKay, P. F., & Wilson, D. C. (2007). Engaging the aging workforce: The relationship between perceived age similarity, satisfaction with coworkers, and employee engagement. *Journal of Applied Psychology*, 92(6), 1542–1556.

Azeem, S.M. (2010) Personality Hardiness, Job Involvement and Job Burnout among Teachers. *International Journal of Vocational and Technical Education*, 2, 36-40.

B. Karsh, B. C. ((2005)). Job and organisational determinants of nursing home employee commitment, job satisfaction and intent to turnover. *Ergonomics*, 48 (10), 1260-1281.

Bagshaw, M. (2000). Emotional Intelligence-training people to be affective so they can be effective. *Industrial and Commercial Training*, *32* (2), 61-65.

Bakker, A. B. (2011). An Evidence-Based Model of Work Engagement. *Current Directions in Psychological Science*, 20 (4), 265–269.

Bakker, A.B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International, 13,* 209 - 223.

Barbuto, J. E., Burbach, M. E. (2006). The Emotional Intelligence of Transformational Leaders: A Field Study of Elected Officials. *The Journal of Social Psychology*, *146*(1), 51–64.

Barling, J., Slater, F., & Kellowag, E. K. (2000). Transformational leadership and emotional intelligence: an exploratory study. *Leadership and Organisation Development Journal, 21* (3), 157-161.

Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory (EQ-i). In R. Bar-On and J. D. A. Parker (Eds.), *Handbook of emotional intelligence*. San Francisco: Jossey-Bass.

Baugh, S., R. R. (1994). Professional and organisational commitment among engineers: conflicting or complementing. *Engineering Management*, 41 (2), 108-114.

Baumgartner, H. & Homburg, C. (1996), Applications of structural modeling in marketing and consumer research: A review, *International Journal of Research in Marketing*, 13, 139 – 161.

Baumruk, R. (2004) 'The missing link: the role of employee engagement in business success', *Workspan*, Vol 47, pp48-52.

Beck, K. & Wilson, C. (2000). Development of affective organisational commitment. A cross-sequential examination of change with tenure. *Journal of Vocational Behaviour*, 56, 114 – 136

Becker, H. S. (1960). Notes on the concept of commitment. *American Journal of Sociology*, 66, 32–42.

Belkic, K. L., Landsbergis, P. A., Schnall, P. L., & Baker, D. (2004). Is job strain a major source of cardiovascular disease risk? *Scandinavian Journal of Work, Environment & Health, 30,* 85–128.

Best, P. W. (1994). Locus of control, personal commitment and commitment to the organisation. *Unpublished M. Com thesis.* University of South Africa, Pretoria.

Bhanu Priya. (2018). Emotional Intelligence: A Study on Public and Private Sector Bank Managers, *International Journal of Creative Research Thoughts*, 209 – 216.

Bhatnagar, J. (2005). The power of psychological empowerment as an antecedent to organisational commitment in Indian managers. *Human Resource Development International*, 8 (4), 419-433.

Blau, P. (1964). Power and exchange in social life. NY: John Wiley & Sons.

Bluedorn AC (1982). "A unified model of turnover from organisations", *Human Relations,* 35, 135-153.

Boyatzis, R. E. (1999). Presentation to the Linkage Conference on Emotional Intelligence, Chicago, IL,

Brickman, P. (1987). Commitment. In C. B. Wortman & R. Sorrentino (Eds.), *Commitment, conflict, and caring* (pp. 1–18). Englewood Cliffs, NJ: Prentice Hall.

Brooks, K., & Nafuko, F. N. (2006). Human resource development, social capital, emotional intelligence: Any link to productivity? *Journal of European Industrial Training*, 30 (*2*), 117-128.

Brown, F. W., & Moshavi, D. (2005).Transformational leadership and emotional intelligence: a potential pathway for an increased understanding of interpersonal influence *Journal of Organisational Behaviour*, *26*, 867–871.

Brown, R. B. (1996). Organisational commitment: Clarifying the concept and simplifying the existing construct typology. *Journal of Vocational Behaviour, 49,* 230-251.

Brunetto, Y., Teo, S. T., Shacklock, K., & Farr-Wharton, R. (2012). Emotional intelligence, job satisfaction, well-being and engagement: Explaining organisational commitment and turnover intentions in policing. *Human Resource Management Journal*, 22(4), 428-441.

Buckingham, M. (2001, October). What a waste. *People Management*, 11, 36–39.

Business World. (2008, May). HR special survey: Engage the employee, 32 - 35.

Cannon, Walter (December 1927). "The James-Lange Theory of Emotions: A Critical Examination and an Alternative Theory". *The American Journal of Psychology*. 39: 106–124.

Carman-Tobin, M. B. (2011). Organisational commitment among licensed practical nurses: exploring associations with empowerment, conflict and trust. University of Iowa.

Carmeli. A. (2003). The relationship between emotional intelligence and work attitudes, behaviour and outcomes: An examination among senior managers. *Journal of Managerial Psychology, 18* (8), 788-813.

Chang H, Chi N, Miao M (2007). Testing the relationship between three-component organisational/occupational commitment and organisational occupational turnover intention using a non-recursive model. *Journal of Vocational Behaviour*, 70: 352-368.

Chapman, M. & Clarke, R. (2003). Emotional Intelligence is a concept that can be used in Stress Management: A response to Slaski, Stress News July 2002. *Stress News, 15* (1).

Cheng Y, Stockdale MS (2003). The validity of the three-component model of organisational commitment in a Chinese context. *Journal of Vocational Behaviour*, 62: 465–489.

Cherniss, C. (2000). Social and emotional competence in the workplace. In R. Bar-On & J. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace* (pp. 433-458). San Francisco: Jossey-Bass.

Cherniss, C. (2001). Emotional intelligence and organisational effectiveness. In C. Cherniss & D. Goleman (Eds.), *The emotionally intelligent workplace* (pp. 3-12). San Francisco: Jossey-Bass.

Cherniss, C. The business case for emotional intelligence. Consortium for Research on Emotional Intelligence in Organisations.

Chong VK, Eggleton IRC (2007). The impact of reliance on incentive based compensation schemes, information asymmetry and organisational commitment on managerial performance. *Manage. Account. Res*., 18: 312-342.

Chou, C. P., & Bentler, P. M. (1995). Estimates and tests in structural equation modeling. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications*, 37-55, Thousand Oaks: Sage Publications.

Coetzee, M., & de Villiers, M. (2010). Sources of job stress, work engagement and career orientations of employees in a South African financial institution. *Southern African Business Review*, 14(1), 27–57.

Coetzee, S. E., & Rothmann, S. (2005). Work engagement of employees at a higher education institution in South Africa. *Southern African Business Review*, 9(3), 23–34.

Cooper, R.K. (1997). Applying emotional intelligence in the workplace. *Training and Development, 51*, 31–33.

Cote', S., & Miners, T.H. (2006). Emotional intelligence, cognitive intelligence, and job performance. *Administrative Science Quarterly, 51*(1), 1-28.

Cristina Jenaro, N. F. (2010). Vigour and dedication in nursing professionals: towards a better understanding of work engagement. *Journal of Advanced Nursing*, 865-875.

Curtis CR, Upchurch RS, Severt DE (2009). Employee motivation and organisational commitment: a comparison of tipped and no tipped restaurant employees. *Int. J. Hosp. Tourism Adm.*, 10: 253-269.

Daus, C. S., & Ashkanasy, N. M. (2005). The case for the ability - based model of emotional intelligence in organisational behaviour. *Journal of Organisational Behavior*, 26, 453 - 466.

Day A.L., Carroll S.A. (2004). Using an ability-based measure of emotional intelligence to predict individual performance, group performance, and group citizenship behaviors. *Personality and Individual Differences,* 36, 1443 - 1458.

Demerouti, E., Bakker, A.B., Janssen, P.P.M. & Schaufeli, W.B. (2001). Burnout and engagement at work as a function of demands and control. *Scandinavian Journal of Work, Environment & Health, 27,* 279-286.

Demerouti, E., Mostert, K., & Bakker, A. B. (2010). Burnout and work engagement: A thorough investigation of the independence of both constructs. *Journal of Occupational Health Psychology, 15,* 209-222.

Deshwal, S. (2015). A Comparison of Emotional Intelligence between Government and Private Sector Employees. *International Journal of Applied Research* 1 (4), 177 – 178.

DeSilva DAM, Yamao M (2006). The involvement of female labor in seafood processing in Sri Lanka: Impact of organisational fairness, organisational commitment and supervisor evaluation on employee commitment. In Choo PS, Hall SJ, Williams MJ (eds.) Global Symposium on Gender and Fisheries. Seventh Asian Fisheries Forum, 1-2 December, 2004, Penang, Malaysia, pp. 103-114.

Diggins, C., & Kandola, P. (2004). Emotional intelligence: the key to effective performance. H*uman Resource Management*, *125*(1), 33−35.

Dodd-McCue, D. and Wright, G.B. (1996) Men, Women & Attitudinal Commitment: The Effects of Workplace Experiences and Socialization. *Human Relations*, 49, 1065-1089.

Downey, L.A., Papageorgiou, V., & Stough, C. (2006). Examining the relationship between leadership, emotional intelligence and intuition in senior female managers. *Leadership and Organisation Development Journal*, *27* (4), 250-264.

Downing, S.J. (1997) Learning the plot: emotional momentum in the search of dramatic logic. *Management Learning*. 28. 1:27-44

Dulewicz, V. & Higgs, M. J. (2000). Emotional Intelligence: A review and evaluation study. *Journal of Managerial Psychology*, *15*(4), 341-372.

Dumisani Mathumbu, N. D. (2013). Perceived Organisational Support, Work Engagement and Organisational Citizenship Behaviour of Nurses at Victoria Hospital. *Journal of Psychology, 4* (2), 87-93.

Durán, M. A., Extremera, N., & Rey, L. (2010). Analyzing the contribution of emotional intelligence and core self-evaluations as personal resources to employee engagement. In S. L. Albrecht (Ed.), *Handbook of employee*

engagement: Perspectives, issues, research and practice (pp. 209–217). Cheltenham: Edward Elgar.

Ealias, A., & George, J. (2012). Emotional intelligence and job satisfaction: A Correlational study. *Research Journal of Commerce & Behavioural Science*, 1 (4), 37 - 42.

Eby LT, Freeman DM, Rush MC, Lance CE (1999). Motivational bases of affective organisational commitment: A partial test of an integrative theoretical model. *J. Occup. Organizational Psychology*, 72: 463–483.

Elena Fiabane, I. G. (2013). Work engagement and occupational stress in nurses and other healthcare workers: the role of organisational and personal factors. *Journal of Clinical Nursing, 22*, 2614–2624.

Erdheim, J, Wang, M. & Zickar, M. J. (2006). Linking the Big Five personality constructs to organisational commitment. *Personality and Individual Differences*, 41, 959-970.

Evangelia Demerouti, A. B. (2000). A model of burnout and life satisfaction among nurses. J*ournal of Advanced Nursing, 32* (2), 454-464.

Fatemeh Dehghan, P. S. (2013). Investigating the Relationship between Emotional Intelligence and Organisational Commitment. *Unique Journal of Business Management Research, 1* (5), 081-094.

Field, L. K., & Buitendach, J. H. (2011). Happiness, work engagement and organisational commitment of support staff at a tertiary education institution in South Africa. *South African Journal of Industrial Psychology, 37*, 68 - 77.

Forkuoh, S. K., Affum-Osei, E., Osei, M. A. and Addo Yaw, V. J. (2014). Employees' Commitment and Growth of Family Businesses. *International Journal of Economics, Commerce and Management*, 2, 1 - 14.

Fornell, C. and Larcker, D. F. (1981) Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18, 39 - 50.

Frank, F.D., Finnegan, R.P. and Taylor, C.R. (2004) 'The race for talent: retaining and engaging workers in the 21st century', *Human Resource Planning*, Vol 27, No 3, pp 12-25.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-andbuild theory of positive emotions. *American Psychologist*, 56, 218-226.

Frijda, N. H. (1993). Moods, emotion episodes, and emotions. In M. Lewis & J. M. Haviland (Eds.), Handbook of emotions (pp. 381-403). New York: Guilford Press

Gardner, L., & Stough, C. (2002). Examining the relationship between leadership and emotional intelligence in senior level managers. *Leadership and Organisation Development Journal*, *23* (2), 68-78.

Garrosa E, Moreno-Jimenez B, Rodriguez- Munoz A & Rodriguez-Carvajal R (2011) Role stress and personal resources in nursing: a cross-sectional study of burnout and engagement. *International Journal of Nursing Studies* 48, 479 - 489.

Goleman, D. (2001). An EI-based theory of performance. In C. Cherniss & D. Goleman (Eds.), *The emotionally intelligent workplace. How to select for, measure, and improve emotional intelligence in individuals, groups, and organisations* (pp. 27-44). San Francisco: Jossey-Bass.

Goleman, D., McKee, A., & Boyatzis, R. E. (2002). *Primal leadership: Learning to lead with emotional intelligence.* Boston: Harvard Business School Press.

González-Romá, V., Schaufeli, W. B., Bakker, A. B., & Lloret, S. (2006). Burnout and work engagement: Independent factors or opposite poles? *Journal of Vocational Behaviour*, *68*, 165–174.

Gregory B. Stevens, P. O. (1983). Expectation and burnout in the developmental disabilities field. *American Journal of Community Psychology*, 11, 615–627.

Grewal, D., Salovey, P. (2005). Feeling smart: the science of emotional intelligence. *American Scientist*, 93, 330.

Guleryuz, G., Guney, S., Aydin, E. M., & Asan, O. (2008). The mediating effect of job satisfaction between emotional intelligence and organisational commitment of nurses: A questionnaire survey, *International Journal of Nursing Studies,* 45, 1625-1635.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). Multivariate data analysis. *Upper Saddle River,* NJ: Prentice Hall.

Hakanen, J. J., & Schaufeli, W. B. (2012). Do burnout and work engagement predict depressive symptoms and life satisfaction? A three-wave seven year prospective study. *Journal of Affective Disorders,* 141, 415–424.

Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and engagement among teachers. *Journal of School Psychology, 43,* 495–513.

Hakanen, J., Schaufeli, W.B. & Bakker, A.B. (2003). *Job demands, job resources and their relationships with burnout and engagement among Finnish teachers*. Manuscript in preparation.

Hallberg, U. E., & Schaufeli, W. B. (2006). ”Same same” but different? Can work engagement be discriminated from job involvement and organisational commitment? *European Psychologist, 11,* 119–127.

Harrison, R. (1997). "Why Your Firm Needs Emotional Intelligence," *People Management,* 3(1), 41.

Harter J. K., & Schmidt, F. L. (2008). Conceptual versus empirical distinctions among constructs: Implications for discriminant validity. *Industrial and Organisational Psychology, 1,* 36–39.

Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87,* 268-279.

Harter, J.K., Schmidt, F.L. and Keyes, C.L. (2002) ‘Well-being in the workplace and its relationship to business outcomes: A review of the Gallup studies’, in Keyes, C.L. and Haidt, J. (Eds) *Flourishing: The Positive Person and the Good Life*, 205-224. American Psychological Association, Washington D.C.

Haynes, S. N., Richard, D. C. S., & Kubany, E. S. (1995). Content validity in psychological assessment: A functional approach to concepts and methods. *Psychological Assessment, 7*(3), 238-247.

Herholdt, K. (2015). *Determinants of Work Engagement and Organisational Citizenship Behaviour Amongst Nurses.* Stellenbosch, SA: Stellenbosch University.

Herman, C. (2012). Developing Emotional Intelligence for Increased Work Engagement, Organisational Commitment, and Satisfaction with Work Life. Stellenbosch University.

Hulland, J. Chow, Y. H. & Lam, S. (1996) Use of casual models in marketing research: A review, *International Journal of Research in Marketing*, 13, 181 - 197.

Humpel & Caputi (2001). Exploring the relationship between work stress, years of experience and emotional competency using a sample of Australian mental health nurses. *Jounal of Psychiatric Mental Health Nurses*, 8(5), 399-403.

Igbal, A. (2011) The Impact Assessment of Demographic Factors on Faculty Commitment in the Kingdom of Saudi Arabia Universities. *Journal of College Teaching & Learning*, 8, 1-13

Ilka Beukes, E. B. (2013). Organisational commitment, work engagement and meaning of work of nursing staff in hospitals. *Original Research*, 1-10.

Ilka Beukes, E. B. (2013). Organisational commitment, work engagement and meaning of work of nursing staff in hospitals. *SA Journal of Industrial Psychology*, 39 (2), 1-24.

Jackson, L.T.B., Rothmann, S., & Van de Vijver, A.J.R. (2006). A model of work-related well-being for educators in South Africa. *Stress and Health*, 22, 263 - 274.

Jafar Shabani, S. A. (2010). Exploring the Relationship of Emotional Intelligence with Mental Health among Early Adolescents. *International Journal of Psychological Studies, 2* (2), 209-216.

Jahanvash Karim, R. W. (2010). Emotional Labour, Emotional Intelligence, and Psychological Distress. *Journal of the Indian Academy of Applied Psychology*, 36 (2), 187-196.

Jai Prakash Sharma, N. B. (2010). Organisational Commitment and its Impact on Job Satisfaction of Employees: A Comparative Study in Public and Private Sector in India. *International Bulletin of Business Administration* (9), 7-19.

Jaros, S. T., Jermier, J. M., Koehler, J. W., & Sincich, T. (1993). Effects of continuance, affective, and moral commitment on the withdrawal process: An evaluation of eight structural equation models. *Academy of Management Journal*, **36,** 951–995.

Jazreel Hui Min Thian, P. K. (2013). Stress, Positive Affectivity, and Work Engagement among Nurses: An Integrative Literature Review. *Singapore Nursing Journal*, 40 (1), 24-33.

Johnson RE, Chang CH, Yang LQ (2010). Commitment and motivation at work: The relevance of employee identity and regulatory focus. *Academic and Management Review*, 35, 226-245.

Joseph, D. L., & Newman, D. A. (2010). Emotional intelligence: An integrative meta-analysis and cascading model. *Journal of Applied Psychology*, *95* (1), 54-78.

Judge, T. A., & Watanabe, S. (1994). Individual differences in the nature of the relationship between job and life satisfaction. *Journal of Occupational and Organisational Psychology*, 67, 101–107.

Judge, T. A., Erez, A. and Martocchio, J. J. (1995, May). 'The effects of negative affectivity and selfdeception on the relationship between the reporting of stress and health complaints', *Paper presented at the Society for Industrial and Organisational Psychology convention*, Lake Buena Vista, FL.

K. Ravichandran, R. A. (2011). The Impact of Emotional Intelligence on Employee Work. *International Journal of Business and Management*, 157-169.

Kafetsios, K., & Loumakou, M. (2007). A comparative evaluation of the effects of trait emotional intelligence and emotion regulation on affect at work and job satisfaction. *International Journal of Work Organization and Emotion*, 2(1), 71 - 87.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33*(4), 692-724.

Kahn, W. A. (1992). To be fully there: Psychological presence at work. *Human Relations, 45*, 321-349.

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36.

Kalyoncu Z., Guney, S., Arslan, M., Guney, S., & Ayranci, E. (2012). Analysis of the relationship between emotional intelligence and stress caused by organisation: A study of nurses. *Business Intelligence Journal*, 5 (2), 334 - 346.

Karthik Namasivayama, X. Z. (2007). An investigation of the moderating effects of organisational commitment on the relationships between work-family conflict and job satisfaction among hospitality employees in India. *Tourism Management*, 28, 1212–1223.

Kassim, N. M. (2001) *Determinants of customer satisfaction and retention in the cellular phone market of Malaysia,* PhD thesis, Southern Cross University, Lisbon.

Kassim, NM. (2001) *Determinants of customer satisfaction and retention in the cellular phone market of Malaysia,* PhD thesis, Southern Cross University, Lisbon.

Kelley, R., & Caplan, J. (1993). How Bell Labs creates star performers. *Harvard Business Review*, 71, 128–139.

Kerr, R., Garvin, J., Heaton, N., & Boyle, E. (2006). Emotional intelligence and leadership effectiveness. *Leadership and Organisation Development Journal*, *27* (4), 265-279.

Ketkar, S., Kock, N., Parente, R., & Verville, J. (2012). The impact of individualism on buyer - supplier relationship norms, trust and market performance: An analysis of data from Brazil and the U.S.A. *International Business Review*, 21(5), 782 - 793.

Khalili A, Asmavi A. (2012). Appraising the impact of gender differences on organisational commitment: Empirical evidence from a private SME in Iran. *International Journal of Business and Management*. 7(5), 100 – 10.

Khalili, A., (2011). Gender Differences in Emotional Intelligence Among Employees of Small and Medium Enterprise: An Empirical Study. *Journal of International Management Studies*, 6 (2), 184 - 193.

Khuong, M. N., & Yen, N. H. (2014). The effects of leadership styles and sociability trait emotional intelligence on employee engagement. A study in Binh Duong City, Vietnam. *International Journal of Current Research and Academic Review*, 2(1), 121-136.

Kim YC, Rhee M. (2010). The contingent effect of social network on organisational commitment: A comparison of instrument and expressive ties in a multinational high technology company. *Sociological perspectives*, 53(4), 479-502.

Kong, Y. (2009). A study on the job engagement of company employees. *International Journal of Psychological Services*, 1(2), 65–68.

Kunnanatt, J. (2004). Emotional intelligence: The new science of interpersonal effectiveness. *Human Resources Development Quarterly*, *15*, 489–495.

Langelaan, S., Bakker, A. B., Schaufeli, W. B., Van Rhenen, W., & Van Doornen, L. J. P. (2006). Do burned-out and work-engaged employees differ in the functioning of the hypothalamic-pituitary-adrenal axis? *Scandinavian Journal of Work Environment and Health*, *32*, 339–348.

Larson, E., & Fukami, C. V. (1984). Relationships between worker behaviour and commitment to the organisation and union. *Academy of Management Proceedings*, 34, 222-226

Law, K. S., Wong, C. S., & Mobley, W. H. (1998). Toward ataxonomy of multidimensional constructs. *Academy of Management Review*, 23 (4), 741–755.

Law, K. S., Wong, C-S, Huang, G-H., & Li, W. (2008). The effects of emotional intelligence on job performance and life satisfaction for the research and development scientists in China. *Asia Pacific Journal of Management*, *25* (1), 51-69.

Leban, W., & Zulauf, C. (2004). Linking emotional intelligence abilities and transformational leadership styles. *The Leadership & Organisation Development Journal*, *25* (7), 554-564.

Lee, H. J. (2001). Willingness and capacity: the determinants of prosocial organisational behaviour among nurses in the UK. *Int. J. of Human Resource Management*, 12 (6), 1029–1048.

Lee, K. H. (2013). Temporary Agency Workers' Perceptions on Organisational Supports and Affective Organisational Commitment. Sweden: University of Gothenburg.

Levine, T. R., Weber, R., Hullett, C., Park, H. S., & Lindsey, L. L. M. (2008). A critical assessment of null hypothesis significance testing in quantitative communication research. *Human Communication Research*, 34, 171–187

Liou, S. R. (2007). The Relationships between Collectivist Orientation, Perception of Practice Environment, Organisational Commitment, and Intention to Leave Current Job among Asian Nurses Working in the U.S. Austin: University of Texas.

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organisational psychology* (pp. 1297–1349). Chicago: Rand McNally.

Lord, R. G., De Vader, C. L., & Alliger, G. M. (1986). A meta-analysis of the relation between personality traits and leadership perceptions: An application

of validity generalization procedures. *Journal of Applied Psychology*, 71, 402–410

Lyman W. Porter, R. M. (1973). Others Organisational Commitment, Job Satisfactions and Turnover among Psychiatric Technicians. Irvine: University of California.

Lyman W. Porter, R. M. (1974). Organisational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59 (5), 603-609.

Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organisational Psychology, 1,* 3–30.

Mai Ngoc Khuong, N. H. (2014). The Effects of Leadership Styles and Sociability Trait Emotional Intelligence on Employee Engagement-A study in Binh Duong City, Vietnam. *International Journal of Current Research and Academic Review*, *2* (1), 121-136.

Mäkikangas, Feldt, Kinnunen, & Tolvanen, 2012, Shimazu et al., 2008; Bakker, Nachreiner, et al., 2001, Diamond and Allcorn 1985, cf. Lee & Ashforth, 1996, Durán, Extremera, & Rey, 2004; Montgomery, Peeters, Schaufeli, & Den Ouden, 2003, Henson, 2001,

Marcheta McGhee, J. S. (1995). Organisational Commitment and Job Satisfaction among State Agency Rehabilitation Counselors: Connecticut. U.S.: Educational Resource Information Center.

Martinez, M. N. (1997). The smarts that count. *HR Magazine*, 42 (11), 72-78.

Martinez-Pons, M. (1997). The relation of emotional intelligence with selected areas of personal functioning. *Imagination, Cognition, and Personality*, 17, 3-13.

Maslach, C., Jackson, S. E., & Leiter, M. P. (1997). Maslach Burnout Inventory: Third edition. In C. P. Zalaquett, & R. Wood (Eds.). *Evaluating stress: A book of resources* (pp. 191-218).

Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422.

Mateja Lorber, B. S.-S. (2014). Factors affecting nurses' organisational commitment. *Obzornik zdravstvene nege* , 48 (4), 294–301.

Mathieu, J.E. and Zajac, D.M. (1990) A Review and Meta-Analysis of the Antecedent, Correlates, and Consequences of Oganisational Commitment. *Psychological Bulletin*, 108, 171-194.

Mauno, S., Kinnunen, U., Makikangas, A., & Natti, J. (2005). Psychological consequences of fixed-term employment and perceived job insecurity among health care staff. *European Journal of Work and Organisational Psychology*, 14(3), 209–237.

May, D. R., Gilson, R. L., & Harter, L. M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organisational Psychology, 77*, 11-37. doi: 10.1348/096317904322915892

Mayer, J. D., Caruso, D. R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for intelligence. *Intelligence, 27, 267-298*

Mayer, J.D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D.J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3–31). New York: Basic Books.

Mayer, J.D., Caruso, D.R., & Salovey, P. (2000). Selecting a measure of emotional intelligence: The case of ability scales. In R. Bar-On & J.D.A. Parker (Eds.), *The handbook of emotional intelligence* (pp. 320–342). San Francisco: Jossey-Bass.

Mayer, J.D., Salovey, P. and Caruso, D. (2000). “Emotional Intelligence meets traditional standards for an intelligence”, *Intelligence,* 27(4): 267-298.

Mayer, R. C., and Schoorman, F. D. (1992) “Predicting participation and production outcomes through a two-dimensional model of organisational commitment”, *Academy of Management Journal*, Vol. 35, pp. 671-84.

McClelland, David C. (1998). Identifying competencies with behavioural-event interviews.*Psychological Science,* 9(5), 331-340.

McNeese-Smith, D. K. (2001). A Nursing Shortage: Building Organisational Commitment Among Nurses. *Journal of Healthcare Management*, 46 (3), 173-187.

McQueen, A.C. (2004). Emotional Intelligence in Nursing Work. *Journal of Advanced Nursing*, 101-108.

Melamed, S., Shirom, A., Toker, S., Berliner, S., & Shapira, I. (2006). Burnout and risk of cardiovascular disease: Evidence, possible causal paths, and promising research directions. *Psychological Bulletin, 132,* 327–353.

Meyer J, Becker T, Vandenberghe C (2004). Employee commitment and motivation: A conceptual analysis and integrative model. *Journal of Applied Psy*chology, 89, 991-1007.

Meyer J. P., Allen N. J. (1991): A three-component conceptualization of organisational commitment. *Human Resources Management Review*, 1 (1), pp. 61-89.

Meyer, B.B., Fletcher, T.B. & Parker, S.J. (2004). Enhancing emotional intelligence in the health care environment: An exploratory study. *The Health Care Manager,* 23(3), 225- 234.

Meyer, J. P. & Allen, N. J. (1984). Testing the side-bet theory of organisational commitment: Some methodological considerations, *Journal of Applied Psychology*, 69, 372 - 378.

Meyer, J. P. (1997). Organisational commitment. In C. L. Cooper,&I.T. Robertson (Eds.), *International review of industrial and organisational psychology,* (Vol. 12, pp. 175-228). Chichester, UK:Wiley.

Meyer, J. P., & Allen, N. J. (1986, June). *Development and consequences of three components of organisational commitment.* Paper presented at the annual meeting of the Administrative Sciences Association of Canada, Whistler, Canada.

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organisational commitment. *Human Resource Management Review,* 1**,** 61–89.

Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review, 11,* 299–326.

Meyer, J. P., Allen, N. J., & Gellatly, I. R. (1990). Affective and continuance commitment to the organisation: Evaluation of measures and analysis of concurrent and time-lagged relations. *Journal of Applied Psychology,* **75,** 710–720.

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organisations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology,* 78, 538–551.

Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsksy, L. (2002). Affective, continuance, and normative commitment to the organisation: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behaviour, 61,* 20–52.

Michael P. Leiter, C. M. (2009). Nurse turnover: the mediating role of burnout. *Journal of Nursing Management, 17,* 331–339.

Michael P. Leiter, P. H. (1998). The Correspondence of Patient Satisfaction and Nurse Burnout. *Social Science & Medicine,* 47 (10), 1611–1617.

Michael T. Brannick, M. G. (2013). Emotional Intelligence and Medical School Performance: A Prospective Multivariate Study. *The Journal of the International Association of Medical Science Educators,* 23 (4), 628-636.

Mignonac, K., Herrbach, O., & Gond, J. P. (2003). *L'intelligence émotionnelle en enterprise*. Onnaing: e-theque.

Mikolajczak, M., Nelis, D., Hansenne, M., & Quoidbach, J. (2008). If you can regulate sadness, you can probably regulate shame: Associations between trait emotional intelligence, emotion regulation and coping efficiency across discrete emotions. *Personality and Individual Differences, 44,* 1356–1368.

Mostert, K., & Rothmann, S. (2006). Work-related wellbeing in the South African police service. *Journal of Criminal Justice*, 34(5), 479 - 491.

Mowday, R. T., Porter, L. W., & Dubin, R. (1974). Unit performance, situational factors, and employee attitudes in spatially separated work units. *Organisational Behaviour and Human Performance*, 12, 231- 248.

Mowday, R. T., Steers, R. M.,&Porter, L.W. (1979). The measurement of organisational commitment. *Journal of Vocational Behaviour*, 14, 224–247.

Nabi, G. R. (1999). An investigation into the differential profile of predictors of objective and subjective career success. *Career Development International*, 4, 212 - 224.

Natalie J. Allen, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organisation. *Journal of Occupational Psychology*, 63, 1-18.

Natalio Extremera, P. F.-B. (2006). Emotional Intelligence as Predictor of Mental, Social, and Physical Health in University Students. *The Spanish Journal of Psychology , 9* (1), 45-51.

Neerpal Rathi, R. R. (2009). Assessing the Relationship between Emotional Intelligence. *Journal of the Indian Academy of Applied Psychology*, 93-102.

Nel J.A., Jonker C.S. & Rabies T. (2013). Emotional intelligence and wellness among employees working in the nursing environment, *Journal of Psychology in Africa* 23(2), 195 - 203.

Nelson, R. (1999). Low-Cost ways to build employee commitment. Inc.com

Nikkheslat, M., Asgharian, R. Saleki, Z. S. & Hojabri, R. (2012). The Relationship between Emotional Intelligence and Organisational Commitment: The Mediating Role of Job Satisfaction. *International Journal of Research in Management and Technology*, 2, 495-498.

Nikolaou, I., & Tsaousis, I. (2002). Emotional intelligence in the workplace: Exploring its effects on occupational stress and organisational

commitment. *The International Journal of Organisational Analysis, 10*(4), 327-342.

Nilay Gemlik, F. A. (2010). The Relationship between Burnout and Organisational Commitment among Health Sector Staff in Turkey. *Journal of Global Strategic Management,* 4 (2), 137-149.

Nordin, N. (2012). Assessing emotional intelligence, leadership behaviour and organisational commitment in a higher learning institution. *Procedia - Social and Behavioral Sciences,* 56, 643-65.

O'Reilly, C. & Chatman, J. (1986). Organisational commitment and psychological attachment: the effects of compliance, identification, and internalization on prosocial behaviour. *Journal of Applied Psychology, 71*(3), 492-499.

Obeng, K., & Ugboro, I. (2003). Organisational commitment among public transit employees: an assessment study. *Journal of the Transportation Research Forum*, 57(2), 83- 98.

Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organisational citizenship behaviour. *Personnel Psychology, 48,* 775-802.

Palmer, P.N. and Jansen, C.A. (2004). Emotional Intelligence as an Important Attribute of Transformational Leadership. Paper Presented at the Southern African Institute of Management Scientist Annual Conference, 17-29 September 2004, Cape Town.

Pande, HS. (2010). Evaluating characteristics and emotional intelligence among workers in organisations in the state of Rajasthan. *International Res Journal*, 1, 3-6.

Pang, N.S.K. (1996). School values and teachers' feelings: A LISREL model. *Journal of Educational Administration,* 34: 64-83

Pardee, D. J. (2009). *Emotional Intelligence and Job Satisfaction among Mental Health Professionals.* Ann Arbor: ProQuest Dissertations Publishing.

Pascale M. Le Blanc, A. B. (2001). Emotional Job Demands and Burnout among Oncology Care Providers. *Anxiety, Stress, & Coping*, 14 (3), 243-263.

Penley, L. E. & Gould, S. (1988). Etzioni's model of organisational involvement: A perspective for understanding commitment to organisations, *Journal of Organisational Behaviour*, 9, 43-59.

Piia Seppala, S. M. (2009). The Construct Validity of the Utrecht Work Engagement Scale: Multisample and Longitudinal Evidence. *Journal of Happiness Studies, 10*, 459–481.

Pool S, Pool B (2007). A management development model: measuring organisational commitment and its impact on job satisfaction among executives in a learning organisation. *Journal of Management Dev*elopment, 26, 353-369.

Porter, L. W., Steers, R. M., Mowday, R. T. & Boulian, P. V. (1974). Organisational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology, 59*(5), 603-609.

R. Krishnaveni, R. D. (2011, September). Diagnosing Employees' Emotional Intelligence in The IT/ITES Sector of South India. *Great Lakes Herald, 5*(2), 1-23.

Ramsay, C. S. (2006, May). Engagement at Intuit: It's the people. In J. D. Kaufman (Chair), *Defining and measuring employee engagement: Old wine in new bottles?* Symposium conducted at the Society for Industrial and Organisational Psychology 21st Annual Conference, Dallas, Texas.

Ramsay, C. S., & Finney, M. I. (2006). *Employee engagement at Intuit.* Mountain View CA: Intuit Inc.

Randall, D. M., Fedor, D. B., & Longenecker, C. O. (1990). The behavioural expression of organisational commitment. *Journal of Vocational Behaviour,* 36, 210–224.

Ravichandran, K., Arasu, K. & Kumar, A. (2011). The impact of emotional intelligence on employee work engagement behavior: An empirical study. *International Journal of Business and Management 6*(11):157-169.

Reisinger, Y., & Turner, L. (1999). Structural equation modeling with LISREL: Application in tourism. *Tourism Management*, 20, 71-88.

Richa Chaudhary, S. R. (2011). Relation between human resource development climate and employee engagement: Results from India. *Europe's Journal of Psychology*, 7 (4), 664-685.

Richman, A. (2006) 'Everyone wants an engaged workforce how can you create it?' *Workspan*, Vol 49, pp 36-39.

Rigdon EE (1998). Structural Equation Modeling. In GA Marcoulides (Ed.), *Modern Methods for Business Research,* Lawrence Erlbaum, New Jersey, pp. 251-294.

Riggio, R. E., Murphy, S. E., & Pirozzolo, F. J. (Eds.). (2002). *Multiple intelligences and leadership*. Mahwah, NJ: Erlbaum

Rinju George, B. S. (2012). Role of Emotional Intelligence on Stress and Coping of Gifted Adolescents. *International Journal of Physical and Social Sciences, 2* (9), 524-538.

Robinson, D., Perryman, S., & Hayday, S. (2004). *The drivers of employee engagement*. Brighton: Institute for Employment Studies.

Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly, 46*, 655-684.

Rothmann, S., & Jordaan, G. M. E. (2006). Job demands, job resources and work engagement of academic staff in South African higher education institutions. *SA Journal of Industrial Psychology, 32*(4), 87-96.

Rozell, E., Pettijohn, C., & Parker, R. (2004). Customer-oriented selling: Exploring the roles of emotional intelligence and organisational commitment. *Psychology and Marketing, 21*, 405–424.

Rozman bin Hj. Mohd Yusof, N. A. (2006). *The Relationship Between Emotional intelligence and organisational commitment among Employees at Selected Zakat collection centres.* eprints.ptar.uitm.edu.my.

Safaa Mohamed El-Demerdash, A. A. (2013). The Relationship between Burnout and Organisational Commitment among Nurses at Tanta University Hospitals. *IOSR Journal of Nursing and Health Science*, 2 (6), 20-28.

Sagie, A. (1998). Employee absenteeism, organisational commitment and job satisfaction: Another look. *Journal of Vocational Behaviour*, 52, 156-171.

Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology, 21*, 600-619.

Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology, 21*, 600-619.

Salami, S.O. (2008) Demographic & Psychological Factors Predicting Organisational Commitment among Industrial Workers. *Anthropologist*, 10, 31-38

Salanova, M. M., & Schaufeli, W. B. (2008). A cross-national study of work engagement as a mediator between job resources and proactive behaviour. *The International Journal of Human Resource Management, 19*, 116-131.

Salovey, P., & Mayer, J.D. (1990). Emotional intelligence. *Imagination, Cognition and Personality, 9*, 185-211.

Salovey, P., Bedell, B. T., Detweiler, J. B., & Mayer, J. D. (2000). Current directions in emotional intelligence research. In M. Lewis & J. M. Haviland-Jones (eds.), *Handbook of emotions*. New York: Guilford Press.

Salovey, P., Bedell, B.T., Detweiler, J. B., & Mayer, J. D. (1999). Coping intelligently: Emotional intelligence and the coping process. In C.R. Snyder (Ed.), *Coping: The psychology of what works* (pp. 141–164). New York: Oxford Psychology Press.

Salovey, P., Woolery, A., & Mayer, J.D. (2001). Emotional intelligence: Conceptualization and measurement. In G. Fletcher & M.S. Clark (Eds.), *The*

Blackwell handbook of social psychology (Volume 2: Interpersonal Processes) (pp. 279–307). Oxford: Blackwell.

Samina Nawab, K. K. (2011). Influence of Employee Compensation on Organisational Commitment and Job Satisfaction: A Case Study of Educational Sector of Pakistan. *International Journal of Business and Social Science*, 2 (8).

Schachter, S. and Singer, J. E. (1962) Cognitive, social and physiological determinants of emotional states, *Psychological Review, 69*, 379-399.

Schaufeli, W. B., & Bakker, A. B. (2003). *Test manual for the Utrecht Work Engagement Scale*. Unpublished manuscript, Utrecht University, the Netherlands.

Schaufeli, W. B., & Bakker, A. B. (2004). Demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organisational Behavior*, 25, 293 - 315.

Schaufeli, W. B., & Bakker, A. B. (2010). Defining and measuring work engagement: Bringing clarity to the concept. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 10-24). New York: Psychology Press.

Schaufeli, W. B., & Salanova, M. (2007). Efficacy or inefficacy, that's the question: Burnout and work engagement, and their relationships with efficacy beliefs. *Anxiety, Stress & Coping: An International Journal*, *20*(2), 177-196.

Schaufeli, W. B., & Salanova, M. (2011). Work engagement: On how to better catch a slippery concept. *European Journal of Work and Organisational Psychology, 20*, 39–46.

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement, 66*, 701-716.

Schaufeli, W. B., Salanova, M., Gonzalez - Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies, 3,* 71-92.

Schaufeli, W.B. & Van Dierendonck, D. (2000). *UBOS - Utrechtse Burnout Schaal. Handleiding* [UBOS Test Manual]. Lisse, The Netherlands: Swets Test Services.

Schaufeli, W.B. and Bakker, A.B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organisational Behaviour*, 25, 293-315.

Schaufeli, W.B., Salanova, M., Gonza´lez-Roma´, V., & Bakker, A.B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71-92.

Schaufeli,W. B.,&Bakker,A.B. (2003). *Test manual for the UtrechtWork Engagement Scale*. Unpublished manuscript, Utrecht University, the Netherlands. Retrieved from http://www.schaufeli.com

Scholl, R. W. (1981). Differentiating commitment from expectancy as a motivating force. *Academy of Management Review,* 6**,** 589–599.

Schutte, N. S., & Loi, N. M. (2014). Connections between emotional intelligence and workplace flourishing. *Personality and Individual Differences,* 66, 134-139.

Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, 25, 167-177.

Seligman, M. E. P. (2002). Positive psychology, positive prevention, and positive therapy. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 3–9). New York: Oxford University Press.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist,* 55, 5-14.

Shaw JD, Delery JE, Abdulla MHA (2003). Organisational commitment and performance among guest workers and citizens of an Arab country. *J. Bus. Res*., 56: 1021–1030.

Shaw, K. (2005) An engagement strategy process for communicators, *Strategic Communication Management*, 9 (3), 26-29.

Sheldon, M.E. (1971), Investment and Involvement as Mechanism Producing Organisational commitment, *Administrative Science Quarterly*, 16, 143-150.

Shimazu, A., Schaufeli, W. B., Kosugi, S., Suzuki, A., Nashiwa, H., Kato, A., Kitaoka-Higashiguchi, K. (2008). Work engagement in Japan: Validation of the Japanese version of the Utrecht Work Engagement Scale. *Applied Psychology: An international review, 57,* 510–523.

Shinn M, R. M. (1984). Coping with job stress and burnout in the human services. *Journal of Personality and Social Psychology*, 46 (4), 864-876.

Shore, L.M., & Wayne, S.J. (1993). Commitment and employee behaviour: Comparison of affective commitment and continuance commitment with perceived organisational support. *Journal of Applied Psychology*, 78, 774-780.

Siw Tone Innstrand, E. M. (2012). A Longitudinal Study of the Relationship between Work Engagement and Symptoms of Anxiety and Depression. *Stress and Health, 28,* 1-10.

Sjoberg, L. (2001). Emotional intelligence: A psychometric analysis. *European Psychologist, 6,* 79–95.

Slaski, M. & Cartwight, S. (2003). Emotional intelligence training and its implications for stress, health and performance. *Stress and Health, 19, 233-139.*

Slaski1, M., & Cartwright, S. (2002). Health, performance and emotional intelligence: An exploratory study of retail managers. *Stress and Heath, 18,* 63–68.

Somers, M. J. (1995). Organisational Commitment, Turnover and Absenteeism: An Examination of Direct and Interaction Effects. *Journal of Organisational Behaviour,* 16 (1), 49-58.

Somers, M. J., & Casal, J. C. (1994). Organisational commitment and whistle-blowing. *Group & Organisation Management,* 19, 270-284

Steers, R. M. (1977). Antecedents and outcomes of organisational commitment. *Administrative Science Quarterly, 22,* 46-56.

Storm, K., & Rothmann, S. (2003). A psychometric analysis of the Utrecht Work Engagement Scale in the South African police service. *SA Journal of Industrial Psychology, 29,* 62–70.

Suliman, A. M. (2007). Emotional intelligence at work: links to conflict and innovation. *Employee Relations*, *29* (2), 208-220.

Sulu S, Ceylan A, Kaynak R. (2010). Work Alienation as a Mediator of the Relationship between Organisational Injustice and Organisational Commitment: Implications for Healthcare Professionals. *International Journal of Business and Management,* 5(8).

Sunil Maheshwari, R. B. (2008). Commitment among state health officials & its implications for health sector reform: Lessons from Gujarat. *Indian Journal of Medical Research*, 148-153.

Sy, T., & Coté, S. (2004). Emotional intelligence A key ability to succeed in the matrix organisation. *Journal of Management Development, 23* (5), 437-455.

Sy, T., Tram, S., & O'Hara, L. A. (2006). Relation of employee and manager emotional intelligence to job satisfaction and performance. *Journal of Vocational Behavior*, 68, 461 - 473.

Syed Mohammad Azeem, N. A. (2014). Role of Stress and Burnout among Nurses in the Private Hospitals. *International Journal of Academic Research in Business and Social Sciences, 4* (3), 420-428.

Taboli, H. (2013). Job satisfaction as a mediator in relation-ship between emotional intelligence, organisational commitment in employees' Kerman universities, Life Science Journal, 10(1), 1-8.

Takawira, N. (2012). *Job embeddedness, work engagement and turnover intention of staff in a higher education institution*. Unpublished master's dissertation, University of South Africa, Pretoria.

Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organisational commitment, turnover intention, and turnover: Path analysis based on meta-analytic findings. *Personnel Psychology*, 46(2), 342-346.

Thomas S. Bateman, S. S. (1984). A Longitudinal Analysis of the Antecedents of Organisational Commitment. *The Academy of Management Journal*, 27 (1), 95-112.

Thor, S. (2012). *Organisational Excellence: A Study of the Relationship between Emotional Intelligence and Work Engagement in Process Improvement Experts* (Doctoral dissertation, George Fox University).

Tikare, M. (2015). A Study of Organisational Commitment with Reference to Marital Status of Indian Nursing Staff. *American Journal of Trade and Policy*, 2 (1), 19-28.

Tikare, M. (2015). An Evaluation of Organisational Commitment of Indian Nursing Staff of Trust/Private Hospitals with Reference to Education. *Abhinav International Monthly Refereed Journal of Research in Management & Technology*, 4 (6), 1-13.

Tokpam, Rojina., Saikia, Jinamoni. and Borah, Tulika. (2015). Emotional intelligence of adults working in government and non - government organisations. *Adv. Res. J. Soc. Sci.*, 6 (1), 77 - 81.

TT, S. (2017). Exploring an Emotional Intelligence Model with Psychiatric Mental Health Nurses. *Journal of American Psychiatric Nurses Association*, 1.

Ugwu, F. O. (2013). Work Engagement In Nigeria: Adaptation of Utrecht Work Engagement Scale for Nigerian Samples. *International Journal of Multidisciplinary Academic Research* 1(3).

Ugwu, F. O. (2013). Work Engagement In Nigeria: Adaptation of Utrecht Work Engagement Scale for Nigerian Samples. *International Journal of Multidisciplinary Academic Research* 1(3).

Upasna A Agarwal, V. G. (2015). *Examination of a Moderated-Mediation Model Linking Perceived Organisational Support, Affective Commitment, Organisational Citizenship Behaviour and Work Engagement: A Study of Nurses in the Indian Context.* Ahmedabad: Indian Institute of Management, Ahmedabad.

Upasna A Agarwal. (2014). Linking justice, trust and innovative work behaviour to work engagement. *Personnel Review*, 43 (1), 41 – 73.

Van Doornen, L. J. P., Houtveen, J. H., Langelaan, S., Bakker, A. B., Van Rhenen, W., & Schaufeli, W. B. (2009). Burnout versus work engagement in their effects on 24-hour ambulatory monitored cardiac autonomic function. *Stress and Health, 25,* 323–331.

Van Dusseldorp LR, v. M. (2011). Emotional Intelligence of Mental Health Nurses. *Journal of Clinical Nursing, 20* (3-4), 555-62.

Van Rooy, D.L., & Viswesvaran, C. (2004). Emotional Intelligence: A meta-analytic investigation of predictive validity and normological net. *Journal of Vocational Behaviour, 65,* 71-95.

Vegsund, H. (2014). *Work engagement among nurses.* Trondheim: Faculty of Social Science and Technology, Norwegian University of Science and Technology.

Vidhya Ravindranadan, R. S. (2008). Emotional Intelligence and Quality of Life of Parents of Children. *Journal of the Indian Academy of Applied Psychology,* 34-39.

Wagner, R., H, J. K. (2006). The great elements of managing. *The Gallup Organisation*, Washington, D.C.

Walker, A., Campbell, K. (2013) Work readiness of graduate nurses and the impact on job satisfaction, work engagement and intention to remain. *Nurse Education Today* 33(12), 1490 - 1495.

Wasti, S. A. (2004, April). Commitment profiles: The combined influence of organisational commitment forms on job outcomes. Paper presented at the annual meeting of the Society for Industrial and Organisational Psychology, Chicago, IL.

Wechsler, D. (1958). *The measurement and appraisal of adult intelligence*. (4th Ed.). Baltimore, MD: The Williams & Wilkins Company.

Welch, J., & Welch, S. (2006, May 8). Ideas the Welch way: How healthy is your company? *Business Week*, 126.

Wiener, Y., & Vardi, Y. (1980). Relationships between job, organisation, and career commitments and work outcomes-an integrative approach. *Organisational Behavior and Human Performance*, 26, 81-96.

Wilmar B. Schaufeli, A. B. (2006). The Measurement of Work Engagement with a Short Questionnaire A Cross-National Study. Educational and Psychological Measurement, 66 (4), 701-716.

Wilson SC, C. J. (2008). Emotional Competence and Nursing Education: a New Zealand Study. *Nursing Praxis in New Zealand, 24* (1), 36-47.

Wong, C. S., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The Leadership Quarterly, 13*, 243–274.

Yang FH, Chang CC (2008). Emotional labor, job satisfaction and organisational commitment amongst clinical nurses: A questionnaire survey. *International Journal of Nursing Studies*, 45: 879-887.

Yılmaz, V. (2004). Consumer behavior of shopping center choice. *Social Behavior and Personality*, 32, 783-790.

Yseult M. Freeney, J. T. (2009). Exploration of the facilitators of and barriers to work engagement in nursing. *International Journal of Nursing Studies, 46*, 1557–1565.

Yun Zhu, C. L. (2015). The impact of emotional intelligence on work engagement of registered nurses: the mediating role of organisational justice. *Journal of Clinical Nursing, 24*, 2115–2124.

Yvonne Brunetto, M. X. W. (2013). The impact of workplace relationships on engagement, well-being, commitment and turnover for nurses in Australia and the USA. *Journal of Advanced Nursing*, 2786-2799.

Zeidner, M., & Saklofske, D. S. (1996). Adaptive and maladaptive coping. In M. Zeidner & N. S. Endler (eds.), *Handbook of coping* (pp. 505–531). New York: John Wiley & Sons.

Zhu Y, Liu C, et al. (2015) The impact of emotional intelligence on work engagement of registered nurses: the mediating role of organisational justice *Journal of Clinical Nursing*, 24, 2115–2124.

Online Sources:

www.ksmha.org
www.ksmha.info
www.dhs.kerala.gov.in
www.mohfw.gov.in
www.dhr.gov.in
www.nhp.gov.in
www.aarogya.com
www.india.gov.in
www.nimhans.ac.in
www.mhatkerala.org
www.eiconsortium.org
www.danielgoleman.info
www.emotionalintelligenceatwork.com
www.employeecommitment.com

www.wilmarschaufeli.nl

www.researchgate.net

www.ispnindia.org

www.indianpsychiatricsociety.org

www.apcpkerala.org

www.iacp.in

APPENDICES

APPENDIX 1

Questionnaire Used in the Study for Collection of Data:

Demographic Profile:

1. Name (Optional): ……
2. Gender: Male ◯ Female ◯
3. Marital Status: Single ◯ Married ◯
4. Occupational Status: Psychiatrist ◯ Psychologist ◯
   Social Worker ◯ Nurse ◯
5. Organisation: Govt. Sector ◯ Private Sector ◯
6. Work Experience: Less than 5 years ◯ 6-10 years ◯
   More than 10 years ◯

Given below are three seven-point scales measuring emotional intelligence, work engagement and organisational commitment. Please read the statements under each scale carefully and put a tick mark according to your agreement/ Disagreement to the one that comes closest to reflect your opinion.

(Strongly Disagree (1), Disagree (2), Slightly Disagree (3), neither Agree nor Disagree (4), Slightly Agree (5), Agree (6), Strongly Agree (7)**)**

1. Wong and Law Emotional Intelligence Scale (WLEIS)

S. No.	Statements	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
Self Emotion Appraisal (SEA):								
1	I have a good sense of why I have certain feelings most of the time.							
2	I have good understanding of my own emotions.							
3	I really understand what I feel.							
4	I always know whether or not I am happy.							
Others' Emotion Appraisal (OEA):								
5	I always know my friends' emotions from their behaviour.							

S. No.	Statements	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
6	I am a good observer of others' emotions.							
7	I am sensitive to the feelings and emotions of others.							
8	I have good understanding of the emotions of people around me.							
Use of Emotion (UOE):								
9	I always set goals for myself and then try my best to achieve them.							
10	I always tell myself I am a competent person.							
11	I am a self-motivated person.							
12	I would always encourage myself to try my best.							
Regulation of Emotion (ROE):								
13	I am able to control my temper and handle difficulties rationally.							
14	I am quite capable of controlling my own emotions.							
15	I can always calm down quickly when I am very angry.							
16	I have good control of my own emotions.							

2. Utrecht Work Engagement Scale (UWES)

S. No.	Statements	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
Vigor								
1	At my work, I feel bursting with energy.							
2	At my job, I feel strong and vigorous.							

S. No.	Statements	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
3	When I get up in the morning, I feel like going to work.							
4	I can continue working for very long periods at a time.							
5	At my job, I am very resilient, mentally.							
6	At my work, I always persevere, even when things do not go well.							
Dedication								
7	I find the work that I do full of meaning and purpose.							
8	I am enthusiastic about my job.							
9	My job inspires me.							
10	I am proud of the work that I do.							
11	To me, my job is challenging.							
Absorption								
12	Time flies when I'm working.							
13	When I am working, I forget everything else around me.							
14	I feel happy when I am working intensely.							
15	I am immersed in my work.							
16	I get carried away when I am working.							
17	It is difficult to detach myself from my job.							

3. Organizational Commitment Scale Revised Version (Meyer, Allen, & Smith, 1993)

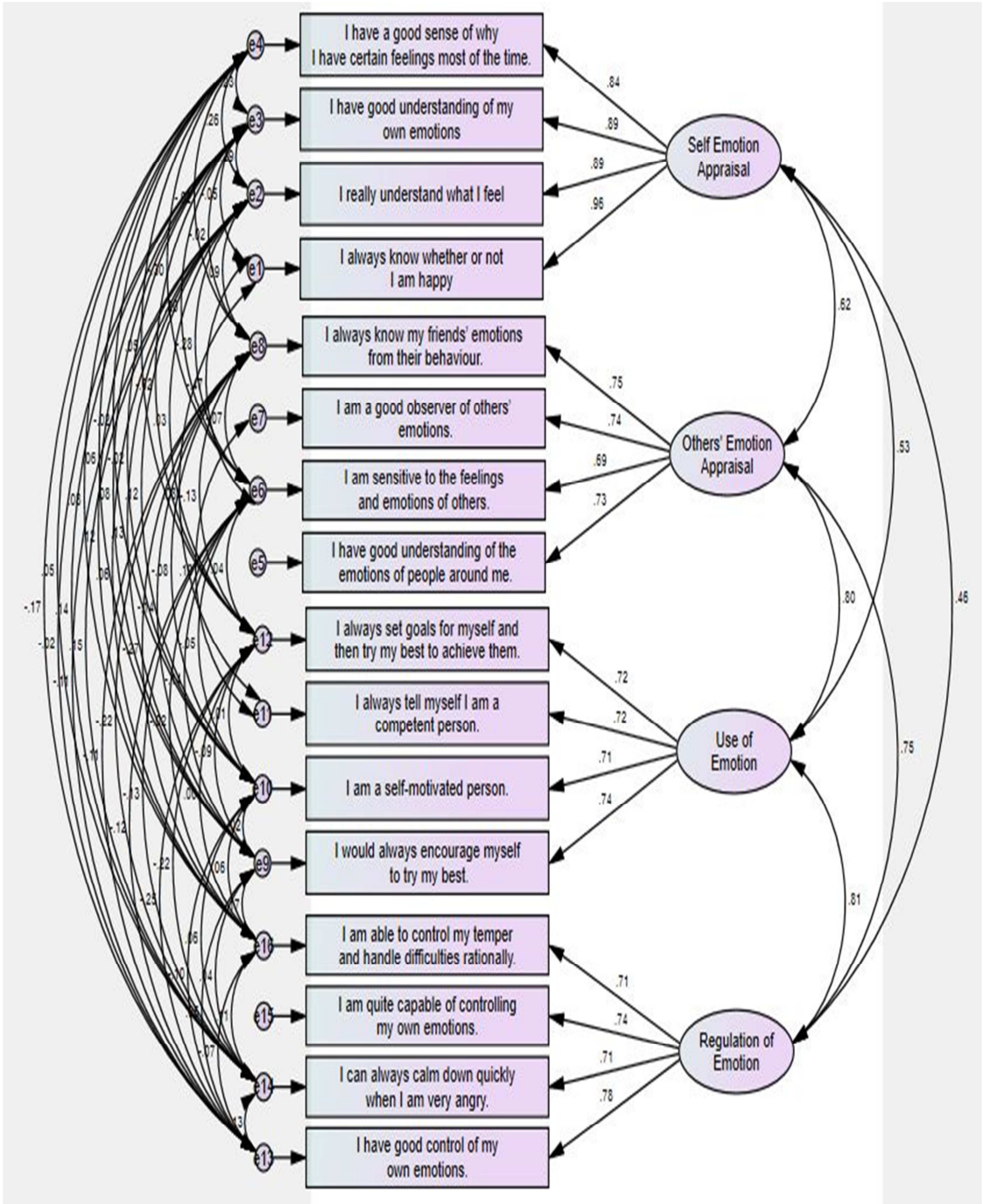
S. No.	Statements	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
Affective Commitment Scale								
1	I would be very happy to spend the rest of my career with this organization.							
2	I really feel as if this organization's problems are my own.							
3	I feel a strong sense of "belonging" to my organization.							
4	I feel "emotionally attached" to this organization.							
5	I feel like "part of the family" at my organization.							
6	This organization has a great deal of personal meaning for me.							
Continuance Commitment Scale								
7	Right now, staying with my organization is a matter of necessity as much as desire.							
8	It would be very hard for me to leave my organization right now, even if I wanted to.							
9	Too much of my life would be disrupted if I decided I wanted to leave my organization now.							
10	I feel that I have too few options to consider leaving this organization.							
11	If I had not already put so much of myself into this organization, I might consider working elsewhere.							
12	One of the few negative consequences of leaving this organization would be the scarcity of available alternatives.							

S. No.	Statements	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
Normative Commitment Scale								
13	I feel an obligation to remain with my current employer.							
14	Even if it were to my advantage, I do not feel it would be right to leave my organization now.							
15	I would feel guilty if I left my organization now.							
16	This organization deserves my loyalty.							
17	I would not leave my organization right now because I have a sense of obligation to the people in it.							
18	I owe a great deal to my organization.							

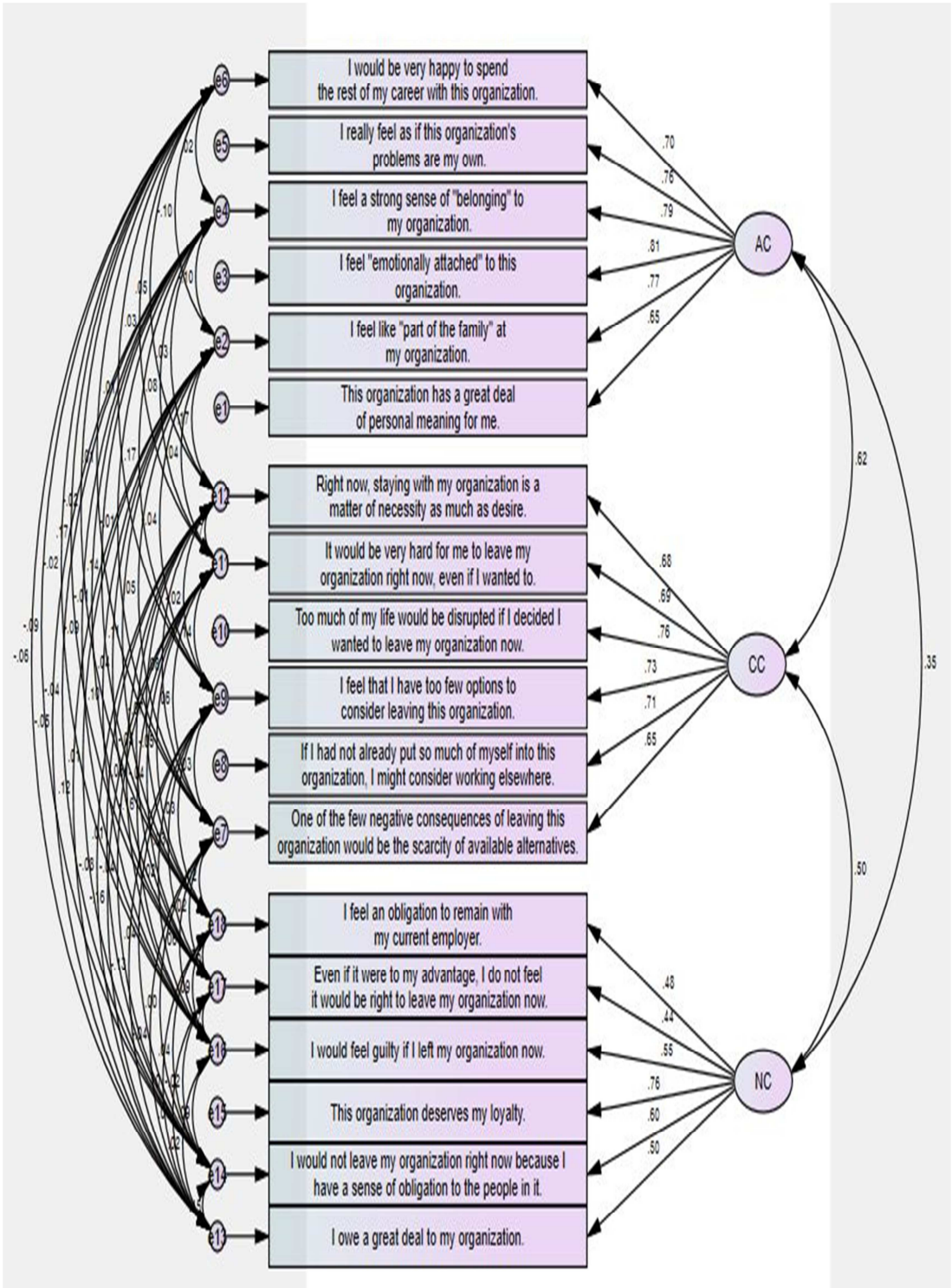
APPENDIX 2

Model Fitting - Error Arrangements

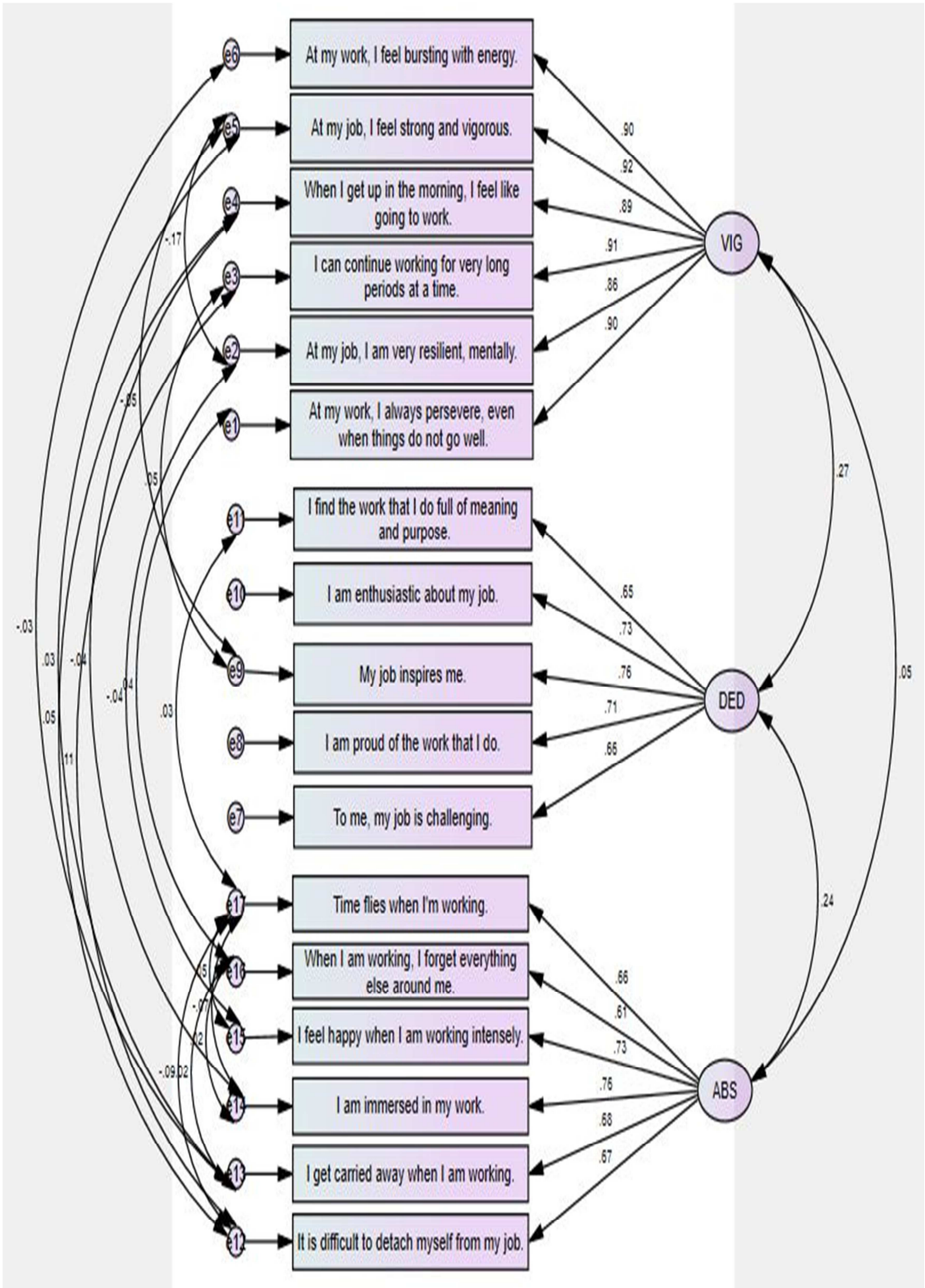
1. Emotional Intelligence



2. Organisational Commitment



3. Work Engagement



APPENDIX 3

Confirmatory Factor Analysis (CFA) – Estimates of Emotional Intelligence Scale

Regression Weights: (Group Number 1 - Default Model)

Items		Label	Estimate	S.E.	C.R.	P
EI_SEA4	<---	SEA	1.000			
EI_SEA3	<---	SEA	1.000	.036	28.066	***
EI_SEA2	<---	SEA	.953	.035	27.062	***
EI_SEA1	<---	SEA	.938	.040	23.665	***
EI_OEA4	<---	OEA	1.000			
EI_OEA3	<---	OEA	.843	.079	10.628	***
EI_OEA2	<---	OEA	.927	.077	11.983	***
EI_OEA1	<---	OEA	.824	.072	11.389	***
EI_UOE4	<---	UOE	1.000			
EI_UOE3	<---	UOE	.924	.082	11.253	***
EI_UOE2	<---	UOE	1.001	.085	11.714	***
EI_UOE1	<---	UOE	.886	.082	10.846	***
EI_ROE4	<---	ROE	1.000			
EI_ROE3	<---	ROE	.849	.076	11.130	***
EI_ROE2	<---	ROE	1.006	.086	11.689	***
EI_ROE1	<---	ROE	.947	.083	11.456	***

Standardized Regression Weights: (Group Number 1 - Default Model)

Items		Label	Estimate
EI_SEA4	<---	SEA	.926
EI_SEA3	<---	SEA	.929
EI_SEA2	<---	SEA	.918
EI_SEA1	<---	SEA	.876
EI_OEA4	<---	OEA	.752
EI_OEA3	<---	OEA	.668
EI_OEA2	<---	OEA	.755
EI_OEA1	<---	OEA	.716
EI_UOE4	<---	UOE	.738
EI_UOE3	<---	UOE	.710
EI_UOE2	<---	UOE	.740
EI_UOE1	<---	UOE	.684
EI_ROE4	<---	ROE	.743
EI_ROE3	<---	ROE	.706
EI_ROE2	<---	ROE	.743
EI_ROE1	<---	ROE	.728

Intercepts: (Group Number 1 - Default Model)

Items	Estimate	S.E.	C.R.	P	Label
EI_SEA4	4.782	.045	106.080	***	SEA
EI_SEA3	4.786	.045	106.342	***	SEA
EI_SEA2	4.796	.043	110.612	***	SEA
EI_SEA1	4.786	.045	106.996	***	SEA
EI_OEA4	4.726	.059	80.551	***	OEA
EI_OEA3	4.828	.056	86.773	***	OEA
EI_OEA2	4.821	.054	88.930	***	OEA
EI_OEA1	4.793	.051	94.371	***	OEA
EI_UOE4	4.568	.064	71.641	***	UOE
EI_UOE3	4.533	.061	74.101	***	UOE
EI_UOE2	4.509	.064	70.911	***	UOE
EI_UOE1	4.614	.061	75.846	***	UOE
EI_ROE4	4.554	.054	84.272	***	ROE
EI_ROE3	4.596	.048	95.223	***	ROE
EI_ROE2	4.582	.054	84.275	***	ROE
EI_ROE1	4.646	.052	88.864	***	ROE

Covariances: (Group Number 1 - Default Model)

Items		Label	Estimate	S.E.	C.R.	P
SEA	<-->	OEA	.301	.043	7.056	***
SEA	<-->	UOE	.308	.045	6.824	***
ROE	<-->	SEA	.229	.037	6.181	***
OEA	<-->	UOE	.468	.061	7.657	***
ROE	<-->	OEA	.351	.049	7.177	***
ROE	<-->	UOE	.438	.057	7.729	***

Correlations: (Group Number 1 - Default Model)

Items		Label	Estimate
SEA	<-->	OEA	.575
SEA	<-->	UOE	.553
ROE	<-->	SEA	.480
OEA	<-->	UOE	.794
ROE	<-->	OEA	.698
ROE	<-->	UOE	.817

Variances: (Group Number 1 - Default Model)

Items	Estimate	S.E.	C.R.	P
SEA	.495	.048	10.226	***
OEA	.553	.079	6.965	***
UOE	.627	.092	6.827	***
ROE	.458	.067	6.860	***
e1	.082	.010	8.363	***
e2	.079	.010	8.247	***
e3	.084	.010	8.802	***
e4	.133	.013	10.031	***
e5	.425	.046	9.248	***
e6	.486	.047	10.277	***
e7	.359	.039	9.205	***
e8	.357	.037	9.769	***
e9	.525	.054	9.652	***
e10	.527	.053	10.014	***
e11	.520	.054	9.642	***
e12	.559	.054	10.276	***

Items	Estimate	S.E.	C.R.	P
e13	.371	.039	9.402	***
e14	.332	.034	9.899	***
e15	.376	.040	9.408	***
e16	.365	.038	9.631	***

APPENDIX 4

Confirmatory Factor Analysis (CFA) – Estimates of Organisational Commitment Scale

Regression Weights: (Group Number 1 - Default Model)

Items		Label	Estimate	S.E.	C.R.	P
OC_AC6	<---	AC	1.000			
OC_AC5	<---	AC	1.191	.112	10.683	***
OC_AC4	<---	AC	1.289	.114	11.340	***
OC_AC3	<---	AC	1.293	.116	11.120	***
OC_AC2	<---	AC	1.220	.112	10.849	***
OC_AC1	<---	AC	1.106	.110	10.049	***
OC_CC6	<---	CC	1.000			
OC_CC5	<---	CC	1.038	.103	10.120	***
OC_CC4	<---	CC	1.063	.099	10.763	***
OC_CC3	<---	CC	1.142	.106	10.731	***
OC_CC2	<---	CC	1.053	.100	10.570	***
OC_CC1	<---	CC	1.015	.100	10.198	***
OC_NC6	<---	NC	1.000			
OC_NC5	<---	NC	1.220	.171	7.121	***
OC_NC4	<---	NC	1.320	.177	7.465	***
OC_NC3	<---	NC	1.089	.160	6.798	***
OC_NC2	<---	NC	1.033	.167	6.197	***
OC_NC1	<---	NC	1.133	.168	6.757	***

Standardized Regression Weights: (Group Number 1 - Default Model)

Items		Label	Estimate
OC_AC6	<---	AC	.647
OC_AC5	<---	AC	.751
OC_AC4	<---	AC	.813
OC_AC3	<---	AC	.791
OC_AC2	<---	AC	.766
OC_AC1	<---	AC	.696
OC_CC6	<---	CC	.669
OC_CC5	<---	CC	.691
OC_CC4	<---	CC	.744
OC_CC3	<---	CC	.741
OC_CC2	<---	CC	.728
OC_CC1	<---	CC	.697
OC_NC6	<---	NC	.534
OC_NC5	<---	NC	.630
OC_NC4	<---	NC	.694
OC_NC3	<---	NC	.581
OC_NC2	<---	NC	.502
OC_NC1	<---	NC	.575

Intercepts: (Group Number 1 - Default Model)

Items	Estimate	S.E.	C.R.	P
OC_AC6	4.895	.064	76.101	***
OC_AC5	4.818	.066	73.000	***
OC_AC4	4.807	.066	72.853	***
OC_AC3	4.747	.068	69.857	***
OC_AC2	4.800	.066	72.417	***
OC_AC1	4.947	.066	74.787	***
OC_CC6	4.744	.062	76.864	***
OC_CC5	4.688	.062	75.599	***
OC_CC4	4.667	.059	79.155	***
OC_CC3	4.670	.064	73.476	***
OC_CC2	4.674	.060	78.262	***
OC_CC1	4.681	.060	77.937	***
OC_NC6	4.635	.061	75.378	***
OC_NC5	4.709	.064	74.102	***
OC_NC4	4.719	.062	75.584	***
OC_NC3	4.768	.062	77.462	***
OC_NC2	4.649	.068	68.864	***
OC_NC1	4.625	.065	71.476	***

Covariances: (Group number 1 - Default model)

Items		Label	Estimate	S.E.	C.R.	P
AC	<-->	CC	.312	.049	6.406	***
NC	<-->	AC	.132	.033	3.968	***
NC	<-->	CC	.179	.037	4.804	***

Correlations: (Group Number 1 - Default Model)

Items		Label	Estimate
AC	<-->	CC	.639
NC	<-->	AC	.341
NC	<-->	CC	.464

Variances: (Group Number 1 - Default Model)

Items	Estimate	S.E.	C.R.	P
AC	.492	.084	5.845	***
CC	.484	.080	6.030	***
NC	.306	.071	4.288	***
e1	.683	.063	10.905	***
e2	.539	.053	10.084	***
e3	.420	.046	9.149	***
e4	.490	.051	9.534	***
e5	.516	.052	9.902	***
e6	.642	.061	10.594	***
e7	.598	.057	10.524	***
e8	.571	.055	10.340	***

Items	Estimate	S.E.	C.R.	P
e9	.441	.045	9.771	***
e10	.517	.053	9.806	***
e11	.476	.048	9.969	***
e12	.526	.051	10.283	***
e13	.768	.073	10.568	***
e14	.691	.071	9.671	***
e15	.574	.066	8.744	***
e16	.713	.070	10.189	***
e17	.968	.090	10.777	***
e18	.796	.078	10.241	***

APPENDIX 5

Confirmatory Factor Analysis (CFA) – Estimates of Work Engagement Scale

Regression Weights: (Group number 1 - Default model)

Items		Label	Estimate	S.E.	C.R.	P
WE_VIG6	<---	VIG	1.000			
WE_VIG5	<---	VIG	.955	.046	20.744	***
WE_VIG4	<---	VIG	.962	.040	23.837	***
WE_VIG3	<---	VIG	1.038	.044	23.334	***
WE_VIG2	<---	VIG	1.000	.041	24.415	***
WE_VIG1	<---	VIG	1.019	.043	23.774	***
WE_DED5	<---	DED	1.000			
WE_DED4	<---	DED	.934	.094	9.922	***
WE_DED3	<---	DED	1.119	.108	10.338	***
WE_DED2	<---	DED	1.014	.100	10.100	***
WE_DED1	<---	DED	.870	.095	9.161	***
WE_ABS6	<---	ABS	1.000			
WE_ABS5	<---	ABS	1.123	.118	9.542	***
WE_ABS4	<---	ABS	1.034	.100	10.326	***
WE_ABS3	<---	ABS	.991	.098	10.149	***
WE_ABS2	<---	ABS	1.000	.113	8.870	***
WE_ABS1	<---	ABS	.855	.094	9.118	***

Standardized Regression Weights: (Group number 1 - Default model)

Items		Label	Estimate
WE_VIG6	<---	VIG	.897
WE_VIG5	<---	VIG	.851
WE_VIG4	<---	VIG	.903
WE_VIG3	<---	VIG	.895
WE_VIG2	<---	VIG	.911
WE_VIG1	<---	VIG	.902
WE_DED5	<---	DED	.663
WE_DED4	<---	DED	.716
WE_DED3	<---	DED	.758
WE_DED2	<---	DED	.733
WE_DED1	<---	DED	.647
WE_ABS6	<---	ABS	.655
WE_ABS5	<---	ABS	.681
WE_ABS4	<---	ABS	.757
WE_ABS3	<---	ABS	.739
WE_ABS2	<---	ABS	.623
WE_ABS1	<---	ABS	.644

Intercepts: (Group number 1 - Default model)

Items	Estimate	S.E.	C.R.	P
WE_VIG6	4.779	.043	109.891	***
WE_VIG5	4.789	.044	109.317	***
WE_VIG4	4.761	.042	114.578	***
WE_VIG3	4.775	.045	105.567	***
WE_VIG2	4.744	.043	110.826	***
WE_VIG1	4.765	.044	108.104	***
WE_DED5	4.579	.053	86.756	***
WE_DED4	4.754	.046	104.107	***
WE_DED3	4.698	.052	90.937	***
WE_DED2	4.702	.048	97.133	***
WE_DED1	4.582	.047	97.359	***
WE_ABS6	4.428	.060	73.251	***
WE_ABS5	4.456	.065	68.284	***
WE_ABS4	4.537	.054	83.866	***
WE_ABS3	4.554	.053	85.735	***
WE_ABS2	4.351	.064	68.461	***
WE_ABS1	4.319	.053	82.116	***

Covariances: (Group Number 1 - Default Model)

Items		Label	Estimate	S.E.	C.R.	P
VIG	<-->	DED	.104	.028	3.779	***
ABS	<-->	VIG	.020	.029	.692	.489
ABS	<-->	DED	.095	.030	3.169	.002

Correlations: (Group Number 1 - Default Model)

Items		Label	Estimate
VIG	<-->	DED	.269
ABS	<-->	VIG	.046
ABS	<-->	DED	.241

Variances: (Group Number 1 - Default Model)

Items	Estimate	S.E.	C.R.	P
VIG	.432	.045	9.687	***
DED	.348	.060	5.819	***
ABS	.445	.077	5.763	***
e1	.105	.011	9.876	***
e2	.151	.014	10.626	***
e3	.091	.009	9.731	***
e4	.116	.012	9.920	***
e5	.088	.009	9.485	***
e6	.103	.011	9.756	***
e7	.443	.044	10.075	***
e8	.289	.031	9.440	***
e9	.323	.037	8.722	***
e10	.308	.034	9.170	***
e11	.366	.036	10.231	***
e12	.593	.058	10.277	***
e13	.648	.065	10.022	***
e14	.355	.040	8.967	***
e15	.364	.039	9.276	***
e16	.702	.067	10.538	***
e17	.460	.044	10.372	***