Impact of Quality of Work Life on Turnover Intention: A Study on Private Health Care Units in Odisha

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Tanaya Nayak

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School of Management
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Certificate of Examination

Roll Number: *512SM302*

Name: *Tanaya Nayak*

Title of Dissertation: *Impact of Quality of Work Life on Turnover Intention: A Study on Private Health Care Units in Odisha*

We the below signed, after checking the dissertation mentioned above and the official record book (s) of the student, hereby state our approval of the dissertation submitted in partial fulfillment of the requirements of the degree of *Doctor of Philosophy* in *School of Management* at *National Institute of Technology Rourkela*. We are satisfied with the volume, quality, correctness, and originality of the work.

Prof. Chandan Kumar Sahoo Supervisor	Prof. Siba Shankar Mohapatra Member, DSC
Prof. Rajeev Kumar Panda Member, DSC	Prof. Shigufta Hena Uzma Member, DSC
Prof. External Examiner	Prof. Dinabandhu Bag Chairperson, DSC

Prof. Dinabandhu Bag
Head of the Department

School of Management
National Institute of Technology Rourkela

Prof. Chandan Kumar Sahoo
Associate Professor

7th November, 2016

Supervisors' Certificate

This is to certify that the work presented in the dissertation entitled *Impact of Quality of Work Life on Turnover Intention: A Study on Private Health Care Units in Odisha* submitted by *Tanaya Nayak,* Roll Number 512SM302, is a record of original research carried out by her under my supervision and guidance in partial fulfillment of the requirements of the degree of *Doctor of Philosophy* in *School of Management*. Neither this dissertation nor any part of it has been submitted earlier for any degree or diploma to any institute or university in India or abroad.

Chandan Kumar Sahoo
Associate Professor

Dedication

This work is dedicated to the memory of my late grandparents, Shri Gobinda Chandra Nayak, a landlord in a small hamlet of Odisha, and Smt. Saraswati Nayak, a homemaker. Their progressive vision and precious blessings have shaped the foundation for the academic and professional endeavours of my family. They have encouraged me to study hard and pursue my dreams. I miss you.

Declaration of Originality

I, *Tanaya Nayak*, Roll Number 512SM302 hereby declare that this dissertation entitled *Impact of Quality of Work Life on Turnover Intention: A Study on Private Health Care Units in Odisha* presents my original work carried out as a doctoral student of NIT Rourkela and, to the best of my knowledge, contains no material previously published or written by another person, nor any material presented by me for the award of any degree or diploma of NIT Rourkela or any other institution. Any contribution made to this research by others, with whom I have worked at NIT Rourkela or elsewhere, is explicitly acknowledged in the dissertation. Works of other authors cited in this dissertation have been duly acknowledged under the sections "Reference". I have also submitted my original research records to the scrutiny committee for evaluation of my dissertation.

I am fully aware that in case of any non-compliance detected in future, the Senate of NIT Rourkela may withdraw the degree awarded to me on the basis of the present dissertation.

7th November, 2016
Rourkela *Tanaya Nayak*

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Abstract

The stakeholders of the health care systems are endeavouring to render effective, efficient, and equitable care in an environment that is enduring transitions in business, clinical, and operating models. In this scenario, the performance of the health care organisations is largely dependent on the knowledge, skills and motivation of the employees. However, health care organisations worldwide, including India are facing an acute shortage of skilled health care employees, which is further intensified by high employee turnover rates. Therefore, it has become crucial for organisations to explore the perceptions of health care employees regarding the factors that influence and shape their decision to quit, for developing effective strategies to reduce turnover and retain the workforce essential to achieve health care outcomes.

Seminal works in developed countries have advocated that the turnover and turnover intention is mostly influenced by the extent to which the employees are satisfied with the facets of their work life. However, the past studies emphasising on the quality of work life (QWL) to address the turnover of health care employees are scarce in India. Thus, this research examines the impact of QWL on the turnover intention of the employees in the private health care units of India. Specifically, the study focuses on gauging the perception of health care employees on the job dimensions, human resource (HR) interventions, QWL, employee commitment, and turnover intention to build logical relationships among these variables.

A survey was conducted among the health care employees (nurses, pharmacists, laboratory technicians, and radiology technicians) working in the private health care units (nursing homes, non-corporate hospitals, and corporate hospitals) situated in the major cities of Odisha (an Indian state), namely Bhubaneswar, Cuttack, Berhampur, Sambalpur and Rourkela. A structured questionnaire comprising of one hundred thirty three items

was distributed to eight hundred employees by adopting the method of convenience sampling. In the process of opinion survey, six hundred nine useful responses were retrieved owing to a response rate of seventy six percent. The responses obtained were subjected to analysis by using SPSS 20 and AMOS 20. The preliminary analysis of data was conducted by using the descriptive statistics, correlation and regression analysis. Then, the hypothesised research model was validated by using statistical tools such as exploratory factor analysis and structural equation modelling.

The findings reveal that the job dimensions have a significant association with QWL of health care employees. Further, the perceived QWL of employees is significantly and positively influenced by the operational HR interventions in the health care units. Subsequently, QWL was substantially linked with the commitment levels of the employees in health care organisations. Conversely, QWL and employee commitment were inversely related to the turnover intention of the employees. Besides, employee commitment partially mediated the relationship between QWL and turnover intention. The results also divulged that the job dimensions did not have a noticeably direct influence on employee commitment and turnover intention and both the relationship was fully mediated by QWL. Likewise, HR interventions did not have a substantial direct effect on employee commitment but had a direct and significant relationship with turnover intention. Moreover, QWL acted as a full mediator between the relationship of HR interventions and employee commitment and as a partial mediator between HR interventions and turnover intention.

Thus, this research provides a holistic framework that may act as a blueprint for health care organisations to assess and improve QWL, commitment levels, as well as reduce employee turnover. Further, the study may also provide substantial evidence to the health care managers for improving structures and planning appropriate remedial measures to build employee-friendly workplaces as well as ensure a meaningful and value driven working lives for the employees. Finally, this work supports the crusade to enhance the QWL of the employees as the top priority of the health care decision makers of the country.

Keywords: Job Dimensions; HR Interventions; Quality of Work Life; Employee Commitment; Turnover Intention; Health Care Employees; Odisha; India.

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Abbreviations

AGFI	Adjusted Goodness of Fit Index
AMOS	Analysis of Moment Structure
ANM	Auxiliary Nurse and Midwives Health Centre
ASHA	Accredited Social Health Activist
AVE	Average Variance Extracted
CAGR	Compounded Annual Growth Rate
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CGD	Career Growth and Development
CGHS	Central Government Health Service Scheme
CHC	Community Health Centre
CR	Compensation and Rewards
EC	Employee Commitment
EFA	Exploratory Factor Analysis
EI	Empowerment and Involvement
ESIC	Employees' State Insurance Corporation
EW	Employee Welfare
GFI	Goodness of Fit Index
GM	Grievance Management
HLEG	High Level Expert Group
HR	Human Resource
HRI	Human Resource Interventions
HRM	Human Resource Management
JC	Job Characteristics
JCI	Joint Commission International
JD	Job Dimensions
JS	Job Security
MoHFW	Ministry of Health & Family Welfare
MOSPI	Ministry of Statistics and Programme Implementation
NABH	National Accreditation Board for Hospitals and Healthcare Providers
NABL	National Accreditation Board for Testing and Calibration Laboratories
NHM	National Health Mission
NHP	National Health Policy
NRHM	National Rural Health Mission
NSSO	National Sample Survey Organisation
NUHM	National Urban Health Mission
OS	Occupational Stress
PCFI	Parsimony Comparative Fit Index
PHC	Primary Health Centre
PWE	Physical Work Environment
QCI	Quality Council of India
QWL	Quality of Work Life
RMSEA	Root Mean Square of Approximation
RSBY	Rashtriya Swasthya Bima Yojana
SC	Sub Centre

SEM	Structural Equation Modelling
SPSS	Statistical Package for Social Sciences
SS	Social Support
TI	Turnover Intention
TLI	Tucker-Lewis Index
TWC	Teamwork and Communication
VIF	Variance Inflation Factor
WHO	World Health Organisation
WLB	Work-Life Balance

Chapter 1

Introduction

The research work has investigated the relationship between quality of work life and turnover intention among the employees of private health care units in India. Health care systems and organisations worldwide including India are confronting numerous problems in managing the health care employees such as shortage of skilled workforce, low performance, low motivation, and high turnover. Extant literature in health care have evidenced the significance of QWL to confront these challenges (Nayeri et al., 2011; Rastegari et al., 2011; Gillet et al., 2013; Lee et al., 2013). A major share of QWL studies on health care employees has been comprehended in developed countries. Nevertheless, the previous research has not addressed QWL in private sector irrespective of its noteworthy contribution towards the accomplishment of the health care goals. Since its inception in 1980, the private sector is playing a pivotal role in improving access to quality health care service in India. The increasing stake of private players in Indian health care system has motivated the researcher to conduct this study for evaluating the QWL and turnover intention of employees in private health care units of India. This chapter begins with a background of the study. It also presents the statement of the problem and the significance of the study. Further, this chapter illustrates the purpose, objectives of the study and the research questions. Finally, it provides an outline of the thesis structure.

1.1 Background of the Research

The upsurge of globalisation has propelled dynamic, ambiguous, and uncertain changes into the health care industry. The stakeholders of the health care systems are endeavouring to deliver effective, efficient, and equitable care in an environment that is enduring transitions in business, clinical, and operating models. These transitions are driven by fluctuating demographics, emerging disease patterns, employee shortage, consumer expectations, technological advancement, and rising health care costs. The capricious priorities of the health care sector can only be pursued through innovation in systems and strategies, supported by a competent, dedicated and motivated workforce. The performance of the health care system is largely dependent on the knowledge, skill, and motivation of the employees. Thus, health care organisations need to spend substantial

effort and resources for the recruitment, selection, and retention of skilled, diligent, proactive and committed employees (Macey et al., 2009). However, the poor human resource management practices in the health care organisations have led to low job satisfaction and high turnover among health care employees (Brunetto et al., 2010). Turnover is a multi-stage process that comprises of psychological, cognitive and behavioural components (Takase, 2010). The cognitive process of leaving the organisation starts with the evaluation of an individual's present situation, which leads to an intention to leave and then the actual act of turnover occurs (Galleta et al., 2016). Therefore, managers should strive to prevent the turnover intention that serves as a transitional linkage to turnover, since actual turnover would generate an extensive cost to both the individual and the organisation (Cheng et al., 2016). Further, it has become essential for organisations to analyse the opinions of employees regarding the factors that impact and shape their decision to quit for building an effective retention policy (Hayward et al., 2016). The turnover intention of the employee is substantially influenced by the factors of the work environment (Hayes et al., 2012). Thus, assessing employee perceptions of their work life is paramount to retain employees in the complex environment of health care (AbuAlRub et al., 2007).

In the recent years, quality of work life (QWL) is gradually being recognised as an imperative criterion for the defining the success and sustainability of an organisation (Koonmee et al., 2010). The work life epitomises a significant domain, which borders the job content and job context of the health care employees. The employees can ascribe pleasure from their work lives only when the fundamental expectations about their workplace and job are suitably fulfilled. The QWL is the perception derived from the rudiments of workplaces that are physically and psychologically desirable and which facilitates the employees to satisfy essential personal needs through their work experiences while achieving organisational objectives (Brooks and Anderson, 2005). QWL is the condition experienced by an individual during the active pursuit of the hierarchical work goals where the achievement of these objectives has a positive influence on their quality of life as well as organisational performance (Martel and Dupuis, 2006). Further, QWL is both a goal and continuous process that requires the commitment of the organisation as well as active participation of the employees (Narehan et al., 2014). The principles of QWL emphasises that employees are the most valuable resource of the organisation, who should be treated with respect and dignity as they are trustworthy, responsible and capable of making a valuable contribution (Rose et al., 2006). The effect

of better QWL is not only limited to the employee's satisfaction with his/her job but spills over to other life domains (Sirgy et al., 2001). The concept of QWL has gained popularity in the last two decades due to the growing demands of the work environment and family structure (Akdere, 2006). QWL initiatives are also essential for health care units to attract new employees and retain their workforces (Almalki et al., 2012a). Furthermore, a progressive culture of ensuring better QWL for employees can improve their self-actualisation along with positive effects on quality of care and productivity (Fu et al., 2015). Hence, organisations need to focus on the work life aspect of the employees to stimulate positive attitude and behaviour at the workplace such as reduced absenteeism (Gupta and Hyde, 2016), improved job satisfaction (Lee et al., 2015), enhanced commitment (Farjad and Varnous, 2013) and low turnover (Mosadeghrad, 2013).

Therefore, it is crucial to explore the work experiences of health care employee to develop effective strategies to improve perceptions of QWL, reduce their turnover intention, reduce costs associated with turnover, and retain the workforce required for quality patient care. Moreover, the health care organisations should focus on development and implementation of innovative HRM practices and consider the employees as the strategic partners (Deadrick and Stone, 2014). Further, improving the HRM system to satisfy the needs of the employee can enhance the overall performance and competitiveness of the organisation (Islam and Siengthai, 2010). Furthermore, organisations should also explore the mechanisms through which HRM practices influence employee behavioural intention (Takeuchi and Takeuchi, 2013).

1.2 Statement of the Research Problem

The health care employees (nurses, pharmacist, and technicians) are an indispensable part of the health care system. These employees taken together are the largest group of health care providers who deliver the highest percentage of both preventive and curative care. Despite being the largest group of providers, there is a severe shortage of skilled health care employees (O'Brien and Gostin, 2008). WHO (2013) has identified several causes of this phenomenon, which include, an ageing workforce with the poor replacement of retired or migrated staffs, lack of trained and young employees, growing world population and increase in communicable diseases. The shortage of health care employees is a universal issue that is anticipated to continue and intensify in the future. The global health care organisations are also stricken with the turnover of employees, which is further

aggravating the shortage of health care employees (Delloite, 2015). Turnover is a serious threat that can be detrimental to patient care experiences and affect the performance and efficiency of health care organisations (Collini et al., 2015). High turnover of the health care employees can also create volatility in the organisation, affects the day-to-day functions and service quality, and increases the cost of recruiting, orientation and training for new employees (Zhao et al., 2013).

The case of India is no different as it is confronting considerable deviations between the current and expected health outcomes in comparison to its peer nations. The major roadblock in the pursuit of health care goals is the shortage of qualified health care employees, which has been attributed to increased demand for services, poor distribution, increased population size, better purchasing power for health services, improved life expectancy and the evolving disease patterns (Hazarika, 2013; Rajan, 2015; Rao et al., 2016). The shortage is rampant in the case of nurses, pharmacists and technicians, which has created a substantial gap in the existing health care infrastructure and services. Further, the hospitals are also facing high turnover, which is more evident in private sector than the public sector (Sharma and Kamra, 2009). In India, the average attrition rate in health care sector is 10-11percent, whereas it rises to 28-35 percent for the health care employees (Dasgupta, 2014). A high turnover is indicative of the poor personnel policies and practices in Indian hospitals (Kumar et al., 2013).

The health care employees in India are plagued with heavy workload, occupational risks, stressful working conditions, negligible career growth, and low compensation (Singh and Khoirom, 2014). Consequently, the structures, processes, and policies in the private health care units are also devoid of satisfactory job dimensions and HR interventions, which hamper the QWL of the employees. The growing dissatisfaction among employees caused by internal and on-the- job factors leads to reduced commitment and instigates the desire to leave the organisation (Kane, 2009). Thus, miserable working conditions, poor remuneration, high-stress levels, increased workload, reduced job satisfaction and low commitment levels are some of the reasons for the employee turnover in Indian health care organisations (Bhattacharya and Ramachandran, 2015; Rajan, 2015).

Several studies have focused on finding the causes and solution for the turnover of health care employees (Flinkman et al., 2008; Qureshi et al., 2013; Zhang et al., 2014). Recent studies have advocated that turnover and turnover intention are mostly influenced by the extent to which the employees are satisfied with the factors of their work life (Almalki et al., 2012b). Further, seminal works in different industries, including health

care have recognised the prominence of QWL to address the turnover of employees (Beh and Rose, 2007; Nayeri et al., 2011; Surienty et al., 2014). Thus, the health care organisations need to identify and assess the determinants specific to the person and work setting that influences QWL, as the requirement and expectation of employees from their workplace has a huge impact on their turnover intention.

1.3 Research Questions

This research will strive towards finding the answers to the following questions:

- Do the elements pertaining to job dimensions affect the degree of QWL of Indian health care employees?
- How will the HR interventions augment the QWL of employees in the Indian private health care set up?
- Does the perceived QWL of employees cause an impact on turnover intention of employees in the private health care organisations?
- Is employee commitment playing the role of a mediator in between QWL and turnover intention?
- Does QWL play a mediating role in the association between job dimensions, HR interventions, employee commitment and turnover intention?

1.4 Justification of the Study

Health care is the largest service sector in India that is projected to grow from USD 45 billion in 2005 to USD 280 billion by 2020 with an expected compounded annual growth rate of 16.5 percent. The sector is growing at a brisk pace due to its expanding coverage, services and increased expenditure by public as well private players. In order to meet the demands of the phenomenal growth, hospitals are in the pursuit of excellence rather than survival and are capitalising on the key areas of people, process and technology. Moreover, a fundamental shift has occurred in service delivery, where the skills of non-clinicians (nurses, pharmacists and technicians) are being appreciated and utilised to fuel the health care reforms of the country. However, there has been no significant effort to improve the QWL of these employees, leading to low commitment levels. Thus, India needs innovative people management interventions to realise its health care vision.

The public sector is the dominant health care provider in the country, which is juxtaposed against the expanding private sector. The private sector constitutes of an entire

spectrum of health care facilities like corporate hospitals, super speciality hospitals, non-corporate hospitals, nursing homes, clinics and diagnostic centres. The private sector is perceived to provide a better quality of care and delivers around 80% of the services to the patients (Lath, 2008). The health policy of the country also proactively promotes the private sector to reduce the service gaps of the public sector. This sector is highly fragmented with over 40 percent of health services being delivered by unorganised, unqualified and unregulated providers. Further, the private health care facilities are subjected to very less legal regulation, which is limited only to registration of the units at the state health department. Thus, the employees in unregulated private health care providers are mostly informally trained, earn low wages, have poor job security and fewer labour rights owing to reduced job satisfaction and high turnover (George, 2008). Thus, the private sector needs adequate strategies for capitalising on its human resource capabilities to deliver better quality of service to the patients.

The nurses, pharmacist and technicians comprise of more than half of the workforce in the private health care units. The management often transfers the responsibilities of routine tasks to nurses and paramedics while expert doctors only handle complicated procedures. Thus, the health care employees take on greater responsibilities and risks than their formal designations to promote better health, provide care, offer comfort, and help in the recovery of the patients. However, the organisations treat the health care employees with least priority and perceive them as a burden rather than an asset for future investment. The profession of health care employees is quite stressful and challenging as they are the most undervalued staff despite their round-the-clock services for the patients (Abraham and D'silva, 2013). Therefore, it is high time that the private sector acknowledges the health care employees and designs collaborative approaches to ensure their QWL, which may reduce the shortage and turnover of the skilled workforce.

Odisha is a state located in the eastern part of India that has a population of around forty two million. The health care service available to its citizens is mostly through the public health care facilities. However, there is an acute scarcity of health care employees in these facilities with one multipurpose health worker for 5000 populations, one staff nurse for 15000 populations and one pharmacist for 41000 populations. The health department of the state has developed a strategic human resource management unit (SHRMU) for addressing the shortage and retention of employees. On the other hand, private health care providers have mushroomed to fulfil the service gaps of the public sector in urban and semi-urban areas of the state. The private players in the state comprise

of few corporate hospital, several mid-size hospitals and mostly nursing homes. Nevertheless, there is no documented evidence on the health care employees of private health care sector in the state. Thus, this study strives to investigate the factors affecting the degree of QWL of employees (nurses, pharmacists and technicians) and the impact of QWL on employee turnover in private health care sector of Odisha.

1.5 Scope of the Research

This study focuses on gauging the perception of health care employees on the job dimensions, HR interventions, QWL, employee commitment and turnover intention to build logical relationships among these variables. The research concentrates on the employees of private health care units situated in the major town/cities of Odisha specifically, Bhubaneswar, Cuttack, Berhampur, Sambalpur and Rourkela. Further, only specific categories of health care employees namely nurses, pharmacists, radiology technicians and laboratory technicians have been chosen to reveal a clear and concrete picture of the current private health care set up.

1.6 Significance of the Study

The majority of global research on QWL in the health care sector has concentrated on the Western countries (Cole et al., 2005; Dolan et al., 2008; Nowrouzi et al., 2015) followed by the Middle East (Dargahi and Seragi, 2007; Vagharseyyedin et al., 2011a; Borhani et al., 2016). Nevertheless, these studies have considerably ignored the private health care sector irrespective of its significant contribution to service delivery. Moreover, all these studies have emphasised on QWL of nurses and have excluded employees like pharmacists, laboratory technicians and radiology technicians.

Likewise, in India, the research on QWL has been predominantly conducted on employees working in manufacturing (Nanjundeswaraswamy, 2015) and service sectors (Srivastava and Pathak, 2016). The explorations of QWL in the health care sector are limited to doctors (Kochar, 2015), nurses (Prasad, 2016), or public health care units (Khera, 2015). Although these studies have examined the concept of QWL and turnover individually, the author could not find any study that has linked QWL with turnover intention in health care sector. Thus, this research strives to fill the void in the existing body of knowledge by assessing the relationship between QWL and turnover intention of

nurses, pharmacist and technicians working in private health care units of Odisha (an Indian State).

1.7 Theoretical Contributions

This research work focuses on five study variables namely, job dimensions, HR interventions, QWL, employee commitment, and turnover intention. The job dimensions are the fundamental elements associated with an occupation that has continuous interaction with the employee, which can be judiciously adjusted for deriving attitudinal outcomes. The job dimensions comprises of several variables like physical work environment, occupational stress, career growth and development, job characteristics, compensation and rewards, and social support. HR interventions are the policies and practices crafted by the organisation to cater to the changing needs and demands of the employee, which can be embedded in the workplace to create a robust influence on the employee's attitudes. The HR interventions comprises of job security, employee welfare, grievance management, teamwork and communication, empowerment and involvement and work-life balance. QWL is the degree to which the edifices of workplace enable the health care employees to accomplish their personal expectations while achieving the organisational objectives (Brooks and Anderson, 2005). Several studies have established the positive association of job dimensions with QWL (Lee et al., 2015), and HR interventions with QWL (Borhani et al., 2016). Nevertheless, role of certain HR interventions like job security, employee welfare, grievance management, and empowerment and involvement towards better QWL have been examined scarcely in earlier studies. This study considers the unique relationships of these context specific HR interventions on the QWL of health care employees. Employee commitment refers to an employee's attachment and identification with the organisation as a whole (Mowday et al., 2013). Turnover intention is different from turnover and refers to the subjective estimation of the employee regarding the probability of leaving the organisation in near future (Carmeli and Weisberg, 2006). Previous work has also evidenced the individual relationship between QWL and employee commitment (Eren and Hisar, 2016), QWL and turnover intention (Lee et al., 2015), and employee commitment and turnover intention (Joo and Park, 2010). However, there is significant gap in literature regarding the mechanism that stimulates the relationship between these variables. Further, hardly any study has measured all these relationships collectively.

Previous works of eminent researchers have demonstrated different conceptual models of voluntary turnover like the unfolding model and the job embeddedness model (Mitchell and Lee, 2001). The unfolding model focuses on key variables of shock to the system and decision frames. The theory suggested that the experience of a positive or negative event is a shock to the system and triggers the cognitive process towards leaving the organization. These events are evaluated against the decision frames like a pre-existing plan of action; the individuals' values and goals; and job satisfaction and fulfilment (both professional and personal). Through these systematic deliberations, an individual may choose one of several distinct decision paths that will culminate into a decision to exit. The job embeddedness model proposed that a person can be embedded in a job through a web of work and non-work related factors that may prevent employees from leaving their jobs. The three main factors that contributed to job embeddedness were links (the extent to which one has strong attachments to people on-the-job and in their community); fit (the extent to which one fits with the job and community; and sacrifice (the degree to which one would have to sacrifice things if they left the job). Both these conceptual models have emphasised on the cognitive aspect of an employee leading to voluntary turnover. However, the current study has deliberated on a fresh direction by analysing the turnover intention of the employees. This research work has primarily focused on the organisation specific factors like job dimensions and HR interventions that have strong impact on the turnover intention of employees. Moreover, the findings evidenced that job dimensions and HR interventions do not have a direct impact on turnover intention, but the relationship is mediated by QWL of employees.

This work demonstrated a comprehensive framework, where job dimensions and HR interventions are acting as the predictors of QWL, and turnover intention is the final outcome. Further, in this model employee commitment acts as a mediator in the relationship between QWL and turnover intention. Moreover, extant works in diverse settings have verified the role of QWL as mediators between emotional labour and work-family interference (Cheung and Tang, 2009), organisational justice and job satisfaction (Totawar and Nambudiri, 2014), and high-performance work systems and work performance (Shen et al., 2014). This work is an extension of the contemporary studies, which portrays QWL as a mediator. It was verified that whether QWL would play the mediator between the direct relationship of job dimensions and employee commitment, HR interventions and turnover intention, HR interventions and employee commitment, and job dimensions and turnover intention. This is a novel attempt in comparison with

existing literature. Thus, this study highlighted that the job dimensions and HR interventions positively influenced the perceived QWL of health care employees. Further, the perceived QWL have an impact on the belongingness of the employee with the organisation. Furthermore, a committed employee will think less about leaving the organisation. Additionally, in Indian health care context, the hypothesised research model has not been investigated until date. Thus, this research contributes to the existing theory through empirical findings on QWL and its impact on turnover intention in the private health care firms from a diverse health care system and a different culture like India.

1.8 Objectives of the Study

The primary purpose of the research is to examine the impact of QWL on the turnover intention of the employees in the private health care units of India. The specific objectives of the study are as follows:

- To study the influence of various job dimensions on the degree of QWL of the health care employees in India
- To investigate the role of HR interventions towards enhancing the QWL of Indian health care employees.
- To confirm employee commitment as an effect of perceived degree of QWL of employees.
- To measure the impact of perceived QWL on turnover intention of employees working in private health care units in India.
- To assess the mediating role of employee commitment in between perceived QWL and turnover intention.
- To explore the mediating effect of QWL among job dimensions, HR interventions, employee commitment and turnover intention.
- To propose a scientific model exhibiting the relationship between QWL, employee commitment and turnover intention based on the empirical findings.

1.9 Thesis Structure

The proposed research work has been lucidly described in seven chapters. The comprehensive framework and the content of the chapters are illustrated below.

Chapter 1: **Introduction**

This is the introductory chapter that comprises of the background, statement of the research problem, research questions, scope of the study, justification of the study, significance, research objectives, and thesis structure.

Chapter 2: **QWL Measures of Indian and Global Health Care Organisations**

This chapter compares and contrasts the QWL practices from global and Indian perspectives and suggests benchmarked measures for adaptation in Indian health care organisations.

Chapter 3: **Overview of Indian Health Care Sector**

This chapter provides an overview of health care sector in India along with health care infrastructure, accreditation, and expenditure. It discusses the private health care sector, health care employees, and the HRM challenges of this sector.

Chapter 4: **Review of Literature and Hypotheses**

This chapter illustrates about the theoretical background and historical development of QWL along with its antecedents and outcomes. It further presents extant literature that have explored the relationship between QWL and turnover intention. It also illuminates on the existing gaps in the literature and presents the hypothesised research model for the study.

Chapter 5: **Research Design and Methodology**

This chapter provides a detailed description of the research settings and multivariate techniques adopted for analysis of the obtained data.

Chapter 6: **Data Analysis, Interpretation and Outcomes**

This chapter illustrates a step-by-step description of the procedures for data analysis. It investigates the relationships among the study variables and tests the research hypotheses to derive the outcomes of the study. It also connects the findings of the research with contemporary literature.

Chapter 7: **Conclusion**

This is the concluding chapter that reflects the summary, suggestions, implications, limitations, conclusion, and scope for further research.

Chapter 2

QWL Measures of Global and Indian Health Care Organisations

This chapter provides an overview of human resource scenario in the global and Indian health care industry. It draws insights from international and Indian health care organisations to present a snapshot of organisational initiatives to enhance the quality of work life (QWL) of employees. It further discusses some of the benchmarked QWL practices and adoptions of these measures by the Indian health care units.

2.1 QWL Initiatives of Global Health Care Organisations

Countries across the world are envisioning an incongruity between the growing health care needs of the population and the availability of trained health care employees. Workforce shortages are a major contributor of poor access to health care services in developing countries and increasing the cost of health care services in developed countries. In addition to addressing the workforce shortages, health care organisations also need to develop the clinical and leadership skills of employees as well as retain them to deliver care in a quality-focused, value-based and consumer-centric environment. Deloitte (2015) prepared a global human capital trends report that identifies ten human resource trends that may pose talent related challenges for health care organisations in this decade. These include "culture and engagement; leadership; learning and development; reinventing HR; workforce on demand; performance management; HR and people analytics; simplification of work; machines as talent; and people data everywhere". The study also calculates a "capability gap" that measures the difference between the worth of a talent related challenge and the readiness of the health care organisations to cope with it. The comparison of the results of 2015 with the previous year shows an increasing magnitude of the capability gap in several areas. These deviations suggest that the booming world economy and swift workforce fluctuations have created an urgent requirement for health care organisations worldwide to embrace human resource practices in general and measures to enhance QWL of employees in particular. The following

sections represent the human resource practices in private health care organisations around the world to improve the QWL of employees.

2.1.1 Albert Einstein Israelite Hospital, Brazil

The Albert Einstein Israelite Hospital is a not-for-profit organisation with its headquarters at Sao Paulo. The organisation works on several fronts of health care like promotion, prevention, diagnosis, treatment, rehabilitation, research, education and consulting. The Joint Commission International has accredited the hospital for three successive periods. Further, it also holds several certifications for the internal processes and service units. The hospital depends on its competent employees, advanced technology, and agility to offer quality health care services. The norm of 'continuous improvement and excellence' is reciprocated at all levels in the organisation. The commitment of the organisation to the elements of governance (clearly defined responsibilities and decision-making), people (trained and engaged professionals), and environment (managing the impacts of operations) has ensued in generating value for society through service delivery, knowledge, and social retribution. The essential attributes of the organisation's strategy are quality and safety that is manifested through rules, control systems, processes and monitoring tools. The strategic planning at the hospital has a five-year horizon, with annual reviews. The balanced scorecard tool that monitors the progress of the plans and evaluates the performance of the hospital also influences the variable remuneration of the employees. The activities in the hospital are mobilised by eleven thousand employees who drive the organisational mission and the practice its values. The people management strategies in this hospital are based on four guidelines; attract and retain talent, professional growth of the team, healthy and inclusive environment, and give support to prepare the future 'Einsteins'. Currently, the hospital is facing challenges in preserving the organisational culture and ensuring the internal engagement of employees. The organisation has a plethora of initiatives in the areas of training and development, diversity and inclusion, compensation and benefits, work conditions, health and safety, organisational climate, and dialogue and participation to ensure better QWL of the employees. These initiatives are listed in table 2.1.

Table 2.1: People Management Strategies at Albert Einstein Israelite Hospital

Focus Areas	*Initiatives/Measures*	*Objectives Achieved/ Outcomes Expected*

Training and development	• Structured training and refresher program
	  ○ Based on technical and behavioural contents
	  ○ Aligned with the skills and competencies required for each activity
	  ○ Comprises of guidelines, competencies and indicators
		• Prepare professionals to face new challenges
		• Grouping of development tracks (organisational, professional-general, professional-specific and individual)
		  ○ Organisational track is targeted at all employees and has four pillars: principles and values, experience in patient care, quality and safety, and sustainability.
		  ○ Professional-general track offers educational solutions to train professionals on the desired deliverables for each mapped competency.
		  ○ Professional-specific track will be guided by area-specific indicators
		  ○ Individual track will be the deployment of the individual performance program

	• Internal training for employees • External training for employees • Internal training for third parties	• 7.5% of employees participated in internal training • 35.3% of employees participated in external training • 55.5% of third parties participated in internal training • An average of 43.2 hours of internal and external training per professional
Diversity and inclusion	• Formation of a ‘Women’s Committee’ to discuss the specific needs of women workers and formulate strategies to harness the potential of the workers for their development and that of the organisation • Participation of youths in the ‘Young Apprentices’ program in areas such as administration, internal controlling, archives and customer service	• Bring together employees from different departments in the organisation to promote reflection on challenges and solutions for integration of work and family life

	• Monthly meetings conducted by the 'Efficient People Committee' for employees with disabilities to discuss topics such as accessibility, professional development and integration within the teams	• Improve the quality of inclusion and enrich the internal culture
	• Formulation of 'Diversity-Friendly Leadership' program	• Value and recognise the best practices of managers, who coordinate teams with apprentices and disabilities as members
Compensation and benefits	• Compensation methodology based on scores for the level of knowledge, decision-making and responsibility required by each position.	• Proper management of the salary structure, remuneration policies and salary ranges
	• An annual salary survey that compares the organisation's practices with a selected group of companies in the health care market and other industries • 'People's Committee' to approve the compensation strategies • Fair wages that are compatible with the duties performed	• Periodic monitoring of possible distortions in compensation and competitiveness of the organisation's compensation policy
	• Variable compensation program for all employees	• Establishes targets for individuals, departments and the organisation
	• 'Healthy Pregnancy' program to assist pregnant women employees and the wives of male employees	• 100% retention rates after availing maternity/paternity leave
	• Other benefits programs include dental care, day-care aid, executive check-up examination, drug store agreement, day-care, parking, maternity leave, paternity leave, private bus, personal guidance program, life insurance, health insurance, food supply ticket, meal ticket and transportation vouchers	
Work conditions	• Policy of only hiring people over 18 years of age, even for apprentice job positions	• Avoid risks of child labour or exposure of youth to hazardous activities • Proactively prevent labour exploitation or any instance of forced or slave-like labour
	• Monitoring workload using timecard reports	• Identify overload and take action to ensure workload balance among employees
Health and safety	• Review of the safety, health and environment management methodology • Redesign of risk monitoring and risk reduction processes	• Reduce the number of work-related accident leaves by 30%

	• Prevention of biological hazards	• Reduction in the number of biological hazard incidents by 17.9%
	• Launch of 'Organizational Ergonomics Policy' that includes ○ Mapping of risks ○ Definition of action plans with resources and deadlines for execution ○ Monitoring of employees' complaints and absenteeism rates related to ergonomic issues	• Monitor and address the workplace-related risks
	• Alcohol and Drug Policy	• Support employees having problems with abuse and guide leaders on how to approach the issue with the staff
	• Employee safety study by DuPont to ○ Assess the current state of safety, health and environment management ○ Compare results with other companies seen as global leaders ○ Identify strengths and opportunities for improvement pursue the target of zero accidents	• Identified strengths in the organisation's safety management, such as the leaders' strong understanding of the subject, alignment of initiatives for meeting targets, and the weekly safety talks • Pointed out the need for improvements in the evaluation mechanisms, as well as the tools and processes for raising awareness among employees
	• Introduction of health promotion programs like ○ 'Programa Gestação Saudáve' for prenatal care, exams and provision of high-cost drugs free-of-charge ○ Coverage for cancer diagnostic tests and treatments ○ Coverage for high-cost drugs ○ Guidance and treatment for back problems under 'Projeto Coluna' ○ Guidance for preventing cancer and fighting smoking ○ Subsidised dental care ○ 'Programa Qualidade de Vida' to promotes physical activity	• Promoting better health of employees
Organizational climate	• Conducted an annual survey among the employees	• Level of satisfaction with departments reached 77% • Satisfaction with the organisation increased to 88% • 90% of employees would recommend the organisation as a good place to work • The organisation received 73.9 points (on a scale from 0 to 100) in the 'happiness at work index'

Dialogue and participation	• Creation of bi-weekly meetings of the General Director and the Hospital Director with groups of coordinators	• Discussion of the strategy, the organisation's future vision and the regular topics deemed relevant to participants
	• HR meetings with employees	• Employees participate in asking questions on topics related to people management
	• Representation of all staffin formal safety and health committeesthat include the operational and strategic levels of the organisationwith specific subjects and targets	• 840 employees in employee safety committee • 1,215 employees in safety, health and the environment committee • 240 employees in sharps and needles committee • 1,992 employees in internal commission for the prevention of accidents • 5,760 employees in local teams

Source: Albert Einstein Israelite Hospital (2014), Albert Einstein Israelite Hospital (2015)

2.1.2 Yukon Hospital Corporation, Canada

Yukon Hospital Corporation (YHC) has been providing health care services across the Yukon Territory, Canada with its facilities in Whitehorse, Watson Lake, and Dawson City. Whitehorse General Hospital is the flagship facility of the corporation that serves around 35,000 residents of the territorial capital and the surrounding areas. It is the only full-scale hospital in the area that offers a wide array of patient services like emergency care, ICU, laboratory, pharmacy, women's clinic, maternity unit, surgical unit, and medical imaging facility. YHC operates on the four principles: 'create excellence in patient care', 'enhance partnerships', 'build a strong organisation', and 'support and engage the employees'. The organisation considers its provision of care to be on time, safe, empathetic, complete, culturally suitable and augment the health and wellbeing of the population. The hospital fosters the culture of collaboration and cooperation among stakeholder to enrich assets and provide distinct services across the continuum of care. It is also targeted to be financially accountable and competitive in providing extraordinary quality of service and operational features. The delivery of care in the organisation is steered by the highly skilled, compassionate and professional employees, who work under the competent leadership and in a culture of communication, appreciation and empowerment. The corporation builds initiatives in the domains of work life, rewards, professional development, work environment, and involvement and engagement to augment the QWL of employees. Table 2.2 discusses these initiatives in detail.

Table 2.2: Engaging Human Resources at Yukon Hospital Corporation

Focus Areas	***Initiatives/Measures***	***Objectives Achieved/ Outcomes Expected***
Employee's work life	• Annual survey that provides employee's feedback on o Personal job satisfaction o Teamwork o Hospital leadership o Communication o Training and education o Safety o Work/life balance • Consultation with staff to improve the working environment	• About 66% of the employees rated the total work experience positively • The survey results help the hospital to recognise the domains that require improvement and which can enable the employees to provide excellent care
Rewards	• Acknowledge employees who have served the organisation for greater than five years	• Average length of service is nine year • A low employee turnover rate of less than 7%
Professional development	• An average Investment of $1,000 per employee for career development	• Employees gain new skills and apprise on recent caregiving techniques
	• Conduct 'nurse education sessions 'every month and 'skill development days' regularly	• Provide front line employees hands-on training to operate equipment and carry out procedures
	• Access to an extensive catalogue of online courses to learn topics that are relevant to work like o New employee orientation o Occupational health and safety procedures o Proper hand hygiene o Violence prevention o Cultural awareness	• Offers staff flexibility to gain essential knowledge through the internet without being bound by time or location
	• On-going student placement program	• Students able to get practical experiences in their study areas by working in the hospital
Work environment	• Reporting incidents, that affects the safety of employees	• Take suitable steps to minimise incidents and sustain a safe workplace
	• Conduct a monthly safety audit	• Comply with standards of workplace safety and safeguard the employees from any harm
	• Annual formal 'fit testing' program	• Ensures a proper fit of respirator masks to ensure protection of employees
Involvement and engagement	• Conduct sessions to gather inputs and engage all employees	• Provide employees with the opportunity to connect and have better understanding of organisational goals

	• Staff-driven working group for designing a plan to o Evaluate and improve communication system o Provide explicit opportunities for developing skills and higher education o Develop an efficient and pragmatic performance management system for employees	• Determine the steps to be taken to support passionate and engaged people and sustain the delivery of high-quality care

Source: Yukon Hospital Corporation (2014), Yukon Hospital Corporation (2015)

2.1.3 José De Mello Saúde Hospital, Portugal

José de Mello Saúde Hospital is the health care business platform of the José de Mello Group and manages seven hospitals and two clinics in Portugal and Spain. The long-term business strategy of the hospital complements the mission, vision and values as well as promotes responsible actions and sustainability in areas of operations. The mission of the organisation is based on three platforms of excellence i.e. human talent, service and operations and systems. The hospital aims to achieve human talent excellence through transmission and promotion of the corporate values; evaluation and rewards for performance; career management; knowledge sharing; teamwork; and culture of accountability, demand, accuracy and achievement. The organisation also firmly believes the values of respect for the person's dignity and well-being, human development, competence, and innovation. The hospital targets to pursue service excellence through the creation of clinical excellence centres, synergetic client relationships, health care humanisation and continuous service improvement. Further, the hospital seeks to accomplish operations and systems excellence through innovation, process enhancements, strict cost control and advanced technologies. It focuses on two strategic guidelines to serve the stakeholders that are, increased capacity to meet the needs of the population and focus on service quality as the core element of the value proposition. The organisation boasts of seven thousand highly qualified employees, who work to provide services that meet the highest medical and ethical criteria. The organisation recognises the employees are a key element of its success and understands that proper management of their talents is a powerful contributor to its sustainable future. The alignment of the human resources policy with the organisational strategy that has contributes to its competitive advantage. The fundamental pillars of the human resources policy are strengthening the culture,

encouraging shared values and principles that translate into benchmark performance. The hospital carries out the attraction and retention of talent in an integrated manner through a systematic process of identifying, evaluating, developing and retaining employees who have the potential for growth and who are committed to the organisation's mission and values. José de Mello Saúde Hospital offers its employees with one of the best places to work by designing initiatives in the areas of organisation culture, training and development, and performance evaluation and rewards. The initiatives encouraged by the hospital are illustrated in table 2.3.

Table 2.3: Well-Being of Talent at José De Mello Saúde Hospital

Focus Areas	***Initiatives/Measures***	***Objectives Achieved/ Outcomes Expected***
Organisation culture	• 'Year of the Employee' project developed initiatives in the areas of: o Information/Knowledge o Sport o Solidarity o Leisure	• Information/knowledge actions contribute to a greater and better knowledge of employees in useful subjects • Sports initiatives support employees through actions that encouraged a healthier lifestyle • Solidarity initiatives encouraged social responsibility thereby contributing to greater solidarity behaviour both in professional or personal settings • Leisure initiatives led to the reinforcement of an active and joyful spirit by promoting play and commemorative activities
	• Sharing the history identity and values of the organisation through • Regular behavioural training • New employee integration programmes • Staff meetings	• Encourage and promote the culture and values of the organisation
Training and development	• CUF Academy, a business unit of the Group that conducts training activities for the employees o encouraging self-training and the practice of research o facilitating across-the-board projects and promoting the exchange dissemination of 'good practices' between the health units and other health and education institutions	• Ensure the development and improvement of skills of health care professionals through training programmes based on the best and most advanced practices • Promote constant renewal and innovation of health care employees • The Academy accounted for almost 125,000 hours of training in different areas

	• Increasing the number and quality of internal training plans and development initiatives • Investment in the development of technical skills (88% of total training hours)	• Dissemination of key knowledge and culture • Adaptation of competitive skills • Continuous improvement in the delivery of health services • Achieve professional differentiation and excellence in the performance of duties
Performance evaluation and rewards	• Review of the performance evaluation model and remuneration policy • Implementation of new evaluation support system	• Employee behaviours are aligned with the desired culture and business goals • Make the employees professionally more skilled and aware of the challenges • Encourage and reward behaviour to achieve the organisation's objectives in line with its strategy

Source: José De Mello Saúde (2015), José De Mello Saúde (2016)

2.1.4 Life Healthcare Group, South Africa

Life Healthcare Group is a black economic empowered (BEE) company and leading private health care provider in South Africa. The organisation primarily operates acute care hospitals and operates an extensive geographic network of diverse facilities. The name 'Life Healthcare' embodies the group's belief in 'life' (well-being and quality of life), 'health' (clinical excellence in world-class facilities) and 'care' (quality service, respect and empathy for patients). The organisation also subscribes to the five core values: 'passion for people', 'quality to the power of e', 'performance pride', 'personal care', and 'lifetime partnerships'. The group aspires to become a universal provider of excellent care through its dedicated employees, who deliver unparalleled quality and clinical excellence and by catering to the individual needs of the stakeholders. The diversified healthcare business of the Group is structured into hospital division and health care services division. The hospital division provides services to the patients having private medical insurance. The health care services division provide services to the public through 'Life Esidimeni' (a public-private partnership of the Group with the Government of South Africa) and large employer groups through 'Life Occupational Health' (on-site occupational and primary health care services on contract basis). Life Healthcare Group manages approximately fourteen thousand permanent and sessional employees as well as agency staff. It highlights on the retention and motivation of employees due to the mounting scarcity of acute care skills in the industry. It also encourages a sustainable employer-employee

relationship where the employer encourages, recognises and rewards the contribution of the employee and the employee shares a shared vision and commitment to the Group. Life Healthcare Group seeks to develop highly motivated and productive employees by nurturing them through numerous measures in the domain of training and development, compensation and benefits, employee wellness, succession planning, employee diversity, disciplinary and grievance procedures, employee engagement, and rewards. Table 2.4 enumerates the initiatives of the group to enhance the QWL of employees.

Table 2.4: Making Employee's Work Life better at Life Healthcare Group

Focus Areas	***Initiatives/Measures***	***Objectives Achieved/ Outcomes Expected***
Training and development	• Investment in education, training and development • Monthly reviews of the training plans	• Enable employees to deliver better quality of service
	• Continuing education	• Provide individuals with career progression opportunities
	• CARE programme that trains employees using a mapping and interaction programme of each facility. The programme simulates a step-by-step patient experience through hospitals, starting with entry to a facility till discharge	• Employees gain a stronger patient-focused orientation by getting the patient's perspectives • Employees able to add value to each interaction
Compensation and benefits	• Short and long-term incentives • Benefits and Support o Retirement funds ▪ Life Healthcare Provident Fund (LHC Provident Fund) ▪ Life Healthcare DC Pension Fund (LHC DC Pension Fund) o Medical aid o Employee share plan o Leave Policy ▪ Annual leave ▪ Maternity leave ▪ Personal leave ▪ Education leave	• Incentivise staff and ensure long-term retention

Employee wellness	• Life Healthcare Wellness programme in association with ICAS o Available for managers, employees and their families o Financial literacy training o Grief support services o Support services provided using group, face-to-face and telephonic counselling	• Inspires and supports employees to achieve physical, mental and fiscal well-being • About 27.4% of employees were benefited from the programme
	• Life Healthcare's HIV/AIDS policy o Access to anti-retroviral, o Attend legacy programme aids for AIDS o Increase awareness o Lifestyle education o Prevention of infection and reinfection	• Prescribe confidentiality, compassion and fairness and non-discrimination for illness • Seven employees received HIV-related counselling and other assistance
Succession planning	• Unit manager development programme that uses o Simulations o Peer-training o Technical and practical learning techniques	• Develop key managerial skills in junior and middle management
	• iLeap senior hospital management development programme that uses o Simulations	• Improve technical and management skills of emerging managers and high potential nurses and pharmacists
	• Succession management programme	• Establish a procedure to support the succession planning
Employee diversity	• Employment equity plan o Treat all employees equitably and with respect o Policies and procedures to ensure that the dominance of merit irrespective of age, gender, race or any other differentiating factors o Provide equal development opportunities o Ensure fair reward for performance	• Encourage tolerance and sensitivity to all cultures • Commitment to maintain a workplace free from discrimination
Disciplinary and grievance procedures	• Inclusion of the policy and procedures in o Basic industrial relations training o Shop stewards training o Human resources induction programmes o Recognition agreement with unions	• Ensure awareness of the grievance policy and procedures
	• Compliance with labours laws	• Regulate the dispute resolution

	• Systematic assessment of the policies and procedures	• Ensures fairness and a safe working environment
Employee engagement	• Employee perception survey is conducted biannually by a third party that focuses on dimensions of employee engagement and empowerment	• Clear and promising direction received the highest score of 82%
	• Physical presence of senior leadership and visits by CEO	• Active engagement with staff to better understand their concerns • Encourages more open dialogue between employees and senior management through input and proposals
Employee rewards	• National reward and recognition scheme to recognise performance over and above remuneration incentives	• Improving the employee value proposition and patient experiences • Showcases individual and team excellence to peer • Support the Group's goal of becoming an employer of choice

Source: Life Healthcare Group (2015), Life Healthcare Group (2016)

2.1.5 KPJ Healthcare Berhad, Malaysia

KPJ Healthcare Berhad (KPJ) is leading private health care service provider in Malaysia with a market capitalisation of more than RM 4.05 Billion. It currently operates an integrated network of facilities across the health care spectrum with twenty five hospitals in Malaysia, two hospitals in Indonesia, a hospital in Bangladesh and has a sizeable share at a hospital in Thailand. KPJ as an advanced health care organisation is dedicated to capitalise on innovative equipment and modern technology to deliver best patient experiences as well as enrich health care results. The organisation has been accredited by Malaysian Society for Quality in Health (MSQH) and Joint Commission International (JCI) and received several certifications for quality management system, environment and occupational safety and health. KPJ's 'Care for Life 'philosophy is centred around the principles of humanising patient care and upholding the highest standards of customer service. The organisation upholds the core values of 'ensuring safety', 'delivering service with courtesy', 'performing duties with integrity', 'exercising professionalism at all times', and 'striving for continuous improvement'. Further, it focuses on five key thrusts to steer forward the organisation amidst the challenging external environment, which are enriched relationships, innovation at the core, new niches and business process improvement. The drivers of KPJ's progress and sustainability are its growth-focused mindset, aggressive competitive strategies and capacity building to meet the challenges of

tomorrow. KPJ comprises of more than twelve thousand employees including the clinical, management and administrative teams. The talent management strategy of the organisation envisages developing and encouraging world-class talents for the building of skilled professionals and teams. The competitive strategies coupled with experienced workforce have helped the organisation to mould the right business footprint in the health care sector. The organisation has focused on several areas of employee work life like continuous learning and skill upgrading, succession planning, team building and communication, work-life balance, health and wellness, employee engagement, compensation and benefits. The initiatives of KPJ Healthcare for better QWL of employees are discussed in table 2.5.

Table 2.5: Employees Driving Success at KPJ Healthcare Berhad

Focus Areas	***Initiatives/Measures***	***Objectives Achieved/ Outcomes Expected***
Continuous learning and skill upgrading	• Policy of 30 hours training per staff • Encourage the eligible employees to pursue graduate qualifications such as MBA and Masters in Nursing	• Average of 34 hours training per staff • 84 sponsored employees have graduated
	• Executive Development Programme (EDP) • Dynamic collaboration with Talent Corp to provide the KPJHB Structured Internship Programme • Design of manuals for use in training of new and promoted employees • Special sponsorship package for candidates interested to study at KPJ Healthcare University College (KPJUC. The sponsorship includes full coverage of tuition fees and provision of an allowance, etc.	• 25 employees graduated from the EDP • A total of 100 plus students were enrolled for internship at KPJ, 42 out of them were hired • Completed 144 training manuals which have been distributed for use and covers cross-learning across all services • Attract students to study at KPJUC
Succession planning programme	• JCorp Leadership Programme • Leadership Innovation Strategy (LIS) organised by GE Crotonville • Transformational Leadership by Michael Wagner, Advisory Board Company, USA	• Successors are identified internally by emphasising on training and development

Team building and communication	• Team building programme for employees to experience teamwork adventures • KPJ Sports Carnival in which 1,500 employees took part in various sporting events with the team	• Participants in the team were able to recognise their ability for o Creative thinking o Leadership o Negotiating o Decision making o Strategic planning
	• Launch of e-Learning portal	• The e-portal aids as a platform through which firm can acquire more from the proposals of the employees
	• Two-way joint agreement between superiors and staff in e-Staff Performance Appraisal (e-SPAR)which serves as a motivation for both the appraiser and the appraised to cultivate an open communication culture and welcome feedback	• Provide all employees with an opportunity to discuss their performance and career development with superior
	• Talent Management Roadshow to interact with employees and obtain feedback on a real-time basis	• Improve communications using different platforms and channels e.g. e-bulletins, desktop screen savers, email blasts, etc.
Work-life balance	• Flexi hours • Priority parking for pregnant staff • Crèche • Family day • Sports carnival • Staff announcements • Town hall sessions	• Enables the employees to balance work and life
Health and wellness	• Body Mass Index (BMI) programme • Yearly medical screening for employees to all employees age 45 and above	• 6,603 employees voluntarily participated in BMI programme • This initiative is expected to benefit more than 200 employees
Employee engagement	• Embarked a massive group-wide climate survey with a response rate of 90% from 8,000 plus employees • KPJ Pulse Survey in 2015 as a follow-up to the climate survey	• The outcome of the survey indicated that o Level of employee engagement is at 74% o Level of employee enablement level is at 79% o Employees are proud to be part of KPJ Healthcare Berhad and have full support to achieve high performance
	• Engagement activities o Monthly employee assemblies to celebrate birthdays and delivery of special announcements o Back to school programme with staff children o Children at work programme	• Expose the employee's children to their parents working environment and foster KPJ as a caring employer

	for the children of KPJ employees	
	• Talent Management Open Day where various agencies were invited such as Pusat Zakat, Employer's Provident Fund (EPF), Lembaga Tabung Haji to provide service to and explanation to the employees	• Provides employees with the opportunity to gain information and knowledge on various HR-related issues, as well as register and open accounts with various government bodies
Compensation and benefits	• Adopt a compensation strategy that is more dynamic and holistic with o Standardised salary scale o Increased employer EPF contribution o Increased outpatient medical benefit entitlement o Performance-Linked Incentive programme o Employee Share Option Scheme for executives and above o Cash consideration for executive assistant category	• Ensure more transparency and uniformity in compensation package to rewards employee based on their performance • Employees will be able to plan a better future for themselves • Recognise employees valuable contributions • Motivate all staff to improve their performance through productivity and loyalty to the KPJ Group • Retain, reward and attract potential candidates to work within the KPJ

Source: KPJ Healthcare Berhad (2015), KPJ Healthcare Berhad (2016)

2.1.6 Ramsay Health Care, Australia

In 1964, Paul Ramsay established the Ramsay Health Care in Sydney, Australia, which has developed to be ranked among the top five private health care service providers in the world. The operations of the Group comprises of over 220 hospitals and day surgery facilities spanning across Australia, France, the United Kingdom, Indonesia and Malaysia. The organisation has proven its competency, management expertise, agility and ethnic consciousness to function effectively in diverse global health care markets. It is valued for establishing quality private hospitals and excellent record of accomplishment in hospital management and patient care. The organisation is committed to focusing on continuous improvements in all areas of patient care to be at the forefront of health care service delivery. It projects a sustainable workforce of approximately twenty seven thousand nurtured through excellence in workplace relations strategies and management practices. The organisation's strong emphasis on people is embedded in its ethos of '*People Caring*

for People'. It recognises the employees as the most valuable asset for its success and strives to endorse an optimistic, pleasant and productive workplace for them. The organisation distinguishes itself from other service providers with a decentralised management structure that encourage open door policy to cultivate dynamic employee relations. Further, the employees work in an approachable and agile setting that offers autonomy to shape the standards and quality of care. The internal policies and processes of the organisation pursue to provide the employees with sufficient initiatives in areas of learning and development, transfer, benefits, grievances and workplace issues and employee engagement to augment their QWL. Table 2.6 illustrates these initiatives in detail.

Table 2.6: Nurturing Employees - The Ramsay Way

Focus Areas	***Initiatives/Measures***	***Objectives Achieved/ Outcomes Expected***
Learning and development	• Dedicated educators employed in all facilities	• Over 170 medical registrars hired
	• Investment in graduate nursing programs • Accredited Specialist Doctor training	• Mandatory training (172,286), Orientation (62,842), Professional development (12,178), Management development (1,921)
	• Strong use of trainees and apprentices • Continued investment in the 'Ramsay Training Institute'	• 1573 enrolled nurses trained in partnership with TAFE
	• Study leave and support for higher education	• 39,476 clinical placement days offered to student nurses and midwives
Employee transfer	• Registered Nurse UK Transfer Program for up to two years. The program brings together a global vision, allowing the two countries to work together to solve a resources deficit and utilises skilled resources that may otherwise be surplus	• The program provides an opportunity for the graduate nurses to gain valuable experience and advance their nursing careers in a dynamic way
Employee benefits	• Flexible working practices • Job-sharing • Purchased annual leave • Paid parental leave • On-site child-care facilities	• Organisation received the 2015 Workforce Gender Equality Agency notice of compliance
Grievances and	• Access to the disciplinary guidelines	• Poor performance and behaviour standards are enforced

workplace issues	• HR help desk	• Offer workplace relations guidance, and mentor the managers and staff • Assist in resolving complaints related to performance management, disciplinary matters and grievances
	• Deployment of state-based employee relations experts	• Conduct annual training programs including comprehensive performance management programs, and solve escalated disputes or conflict
	• Engaged Deloitte to provide an external whistleblower hotline for employee complaints	• The complaints are escalated to a Ramsay Board member and a member of the Executive Management team for investigation
	• Comprehensive staff EAP program	• Delivers private counselling using qualified, independent providers to staff and their families
Employee engagement	• Staff satisfaction survey	• Facilities implemented action plans to ensure each facility could maintain or improve their top strengths as well as address any poor performance areas or specific employee annoyances
	• Performance review process, exit interviews and surveys	• Employees able to share their thoughts about working with the organisation
	• Employee share scheme	• Provide long-serving staff with the opportunity to acquire an ownership interest in Ramsay
	• '50Plus' program	• Recognises and rewards the contribution of experienced employees

Source: Ramsay Health Care (2015)

2.1.7 Tennet Health Care, United States of America

Tennet Health Care is one of the prominent health care service providers in the USA with a comprehensive network of facilities that include 80 hospitals, 20 short-stay surgical hospitals and more than 470 outpatient centres. The common mission of the organisation is to help people live happier and healthier lives. It is further channelled by the core values of quality, innovation, service, integrity and transparency. Tenet health care provides compassionate and quality care to millions of patients in the area of wellness, primary care, urgent care, chronic care management, advanced diagnostics, outpatient surgery, rehabilitation and acute care. It strives to transform the health care delivery approach by

creating superior care, refining results, implementing innovation through new technologies and treatments, always doing what is right, developing new medical services and solutions for the patients, physicians and employees. The balanced score card aligns the organisation on five critical performance pillars of cost, growth, quality, service and people. The organisation has an employee base of one lakh thirty thousand, who continuously endeavour to deliver the best care to the patients. It believes in taking the responsibility to provide fair remuneration, safe work environment and a culture that stimulates values and high standards of behaviour to the employees. The hospital has designed several strategies that align with this aspiration like employee engagement, health and well-being, career development, training programs, peer and affinity groups, diversity and inclusion, and compensation and benefits (table 2.7). The organisation's commitment to people is reflected in its accountability to a core set of principles expected and deserved by the employees. These principles encourage the employees to become capable to the assigned position, know what is expected, give and receive timely feedback, recognised and rewarded, and grow and learn. It echoes the philosophy that when the employees flourish, the patients will receive the best possible care.

Table 2.7: Moving the Employees Forward at Tennet Health Care

Focus Areas	***Initiatives/Measures***	***Objectives Achieved/ Outcomes Expected***

Employee engagement	• Annual employee survey
	  ○ Response rate of seventy-five percent
	  ○ The survey provided information on
	  ▪ Work environments
	  ▪ Culture of patient safety
	  ▪ Overall satisfaction with Tenet as a place to work
	  ○ Feedback sessions with employees to further understand the results.
		• Achieved a two percentage improvement in engagement
		• The feedback sessions were instrumental in pinpointing specifications pertinent to the employees
		• The survey helps the hospital to
		  ○ Understand the results
		  ○ Establish priorities
		  ○ Communicate the results and priorities
		  ○ Generate recommendations
		  ○ Develop action plans and monitors progress

Health and well-being	• A progressive wellness program called "Tenet Total Wellness"
	  ○ Promotes six dimensions of health
	  ▪ Physical
	  ▪ Emotional
	  ▪ Environmental
		• 60,539 employees and spouses participated in the Tenet Total Wellness program
		• 24,292 employees and spouses completed biometric screenings, a 47 percent increase from the previous year

	▪ Intellectual ▪ Financial ▪ Social ○ Encourage a well-balanced lifestyle through ▪ Fun individual and team challenges ▪ Informative webinars ▪ Engaging wellness activities ▪ Personal coaching ○ Employees and their spouses participate by completing an online health assessment and a biometric screening covering four areas: ▪ Blood pressure ▪ Total cholesterol ▪ Body mass index ▪ Tobacco use	• 32,752 employees and spouses completed an online health assessment, a 36 percent increase from previous year • 33 percent of screening participants earned a Health Incentive in all four screening categories • American Heart Association (AHA) Fit-Friendly Platinum Status Award • Dallas Business JournalHealthiest Employer in North Texas
Career Development	• Tenet leadership academy ○ Individual training in areas of ▪ Innovation ▪ Operations ▪ Growth ▪ Senior leadership networking ▪ Individual skills-building ○ Design and delivery of a strategically relevant team project including topics such as ▪ Physician alignment ▪ Organic growth ▪ Patient experience	• 36 high-potential clinicians (including nurses and employed/affiliated physicians), health care administrators developed and refined their leadership skills in 2014
	• Tenet finance academy	• Retain and develop high-potential finance leaders
	• Emerging talent programs ○ Masters of business administration (MBA) leadership development program ○ Masters in health care administration (MHA) leadership/residency programs	• Provide candidates with the prospect to familiarise with hospital leadership and operations, information systems and data resources and understand the planning and execution process • Successful candidates are expected to ascend to leadership roles in the hospital
	• Veteran Leadership and Recruiting program	
Training programs	• Ebola Preparedness	• Employees completed two million hours of training
	• Clinical Value Councils	• Develop and design of standardised training as well as individual resources, courses and toolkits for each of the associated workgroup

	• Leadership Development through"Embracing Change" workshop	• Design and implementation of the foundations of leadership in frontline leaders
	• Labour and Productivity Training	• National launch of instructor-led training and online programs to support the performance excellence initiatives
	• Ethics and Compliance	
Peer and affinity groups	• Tenet CEO Council (TCC)	• Hospital CEOs prioritise the design, application, and efficiency of company-wide initiatives and programs
	• Advisory Councils and Peer Groups	• Assists in facilitating work groups • Create uniform initiatives • Identify and share best practices on key metric improvements
	• Nurse Executive Council	• Recommends strategy based projects and guides nursing leadership and clinical practice based on overall Tenet goals, priorities and strategies
	• Sustainability Advisory Council	• Develops strategies, implement new programs and share ideas within the sustainability interest group
Diversity and inclusion	• Assess the diversity profile • Catalogue the local programs • Continued actions on diversity and inclusion opportunities	• Improvements in four core areas: o Patient equality of outcomes o Workforce planning in an increasingly diverse way o Community and public relations o Compliance and risk
	• Tenet's first Women Leader Event o Mentorship/sponsorship of emerging women pipeline o Gender effective communication awareness and skills	• 40 women officers and hospital CEOs attended the conference
	• Forums for a self-created and self-initiated agenda	• Building awareness and making substantive progress in interest areas of the members
Compensation and benefits	• Comprehensive medical/dental/vision plans • 401(k) retirement plan • Life and accidental death & dismemberment insurance • Business travel insurance • Prepaid legal assistance • Employee stock purchase plan • Reimbursement accounts • Long-term care • Pensions	• Offers a flexible benefits package focused on meeting the needs of all eligible employees and their family members • Provide supplemental retirement benefits to certain current and former executives

Source: Tennet Health Care Sustainability Report (2015)

2.2 QWL Initiatives of Indian Health Care Organisations

Human resources are a critical determinant of health care service performance with respect to quality and cost. The Indian health care organisation are facing several workforce challenges like talent shortage, attraction and retention, training multi-tasking employees, developing a second line staff, managing the younger workforce, and ensuring workforce accountability. The industry requires large-scale HRM practices to cope with these challenges. The diffusion of progressive people management trends in Indian health care units is mostly adapted from other sectors or western countries. However, the international practices in hospital and health care management are not popular in this sector. This is because historically the health care organisations have always focused on clinical and technical aspects of health care rather than on management tools and techniques. Only a few organisations implement globally accepted HR practices. Table 2.8 highlights the human resource measures prevalent in the prominent private hospitals of the country.

Table 2.8: QWL Initiatives in Indian Health Care Organisations

Organisation's Name	***Initiatives***
Apollo Hospitals Enterprise Ltd.	• Training programs o Knowledge, competence and skill up gradation of employees • Health and safety practices o Safe environment and health working conditions • Grievance redressal system o Address and resolve the concerns and grievances of the employees • Chairman's Club o Succession planning and leadership development programme • 'You-r-HR' Module o Standardise HR processes across the group • Employee assistance program with Compsych o Address the personal life issues of employees • Employee engagement programs o Conduct recognition and recreational activities • Rewards and recognition o Employee of the year award, Service excellence award, ISpark, Dedicated service award, Honesty award
Max Healthcare	• Max Institute of Medical Excellence o Education and training of doctors, nurses and allied staff • "DISHA" ERP system

	○ Well defined goal sheets for employees • Competency framework and organisational talent review ○ Develop and groom leadership team for future • 'Build' Model ○ To initiate hiring of nurses from educational instructions • Max Skill First ○ Provide tailor made and need-based functional and behavioural programs to enhance productivity and efficiency • Online self-help tool ○ Assist and enable employees to log in their HR queries and questions online • Rewards and recognition framework ○ Swachh Max Awards, Sevabhav Awards, Healing Hands Awards, Khushi Awards and Dhruv Awards with specific objective and positioning ○ Employees stock options plan
Fortis Healthcare Ltd.	• Lakshya talent engagement pillar ○ Fair and transparent HR systems and processes • Fortis Leadership School of Excellence ○ Enhancing leadership capability, aligning organisation direction and enhancing business acumen of employees • Career management ○ Create career opportunities for employees ○ Identify and nurture high potential talent ○ Develop a functional competency framework ○ Establish a robust succession planning program • Rewards and recognition ○ Standardised policies on monetary and non-monetary benefits in order to reinforce equity, fair play and improve employee satisfaction
Narayana Health	• Career development ○ Professional growth ○ Personality development • Work culture ○ Open door policy that allows seamless interactions between employees and the senior leadership team • Training and development ○ Skill development ○ External training • Economic rewards ○ Motivate employees and enhance retention

Source: Apollo Hospitals Enterprise Ltd. (2016), Max Healthcare (2015), Fortis Healthcare Ltd. (2015), Narayana Health (2016).

2.3 Benchmarked QWL Practices

The discussions in the preceding sections have provided ample evidence regarding the prominence of human resource measures in global health care units for exceptional service delivery and distinctive business performance. Hence, these benchmarked practices can be presumed as the predictors of better QWL of employees in Indian health

care settings. The summary of these constructive and value adding practices are explained below:

- Global health care units primarily focus on providing training and development opportunities to the employees. Health care setting comprises of high-volume of innovation in technology and service practices. Thus, the employees need to learn continuously and upgrade their skills to accomplish the service demands. The organisations also promote continuing education programs to help the employees to acquire higher qualifications. Further, the hospitals focus on imbibing strong leadership skills in their employees for effective succession planning.
- Health and safety initiatives are vital in international health care facilities to ensure the well-being of employees. The organisations are designing ergonomically safe workplace for employees to avoid severe health risks and biological hazards. Further, the firms also sponsor health and wellness program to ensure better physical, mental and social health of the employees.
- Global hospitals primarily highlight on superior compensation and benefits to attract, reward, and retain employees. The compensation strategy strives towards confirming transparency and standardisation in employee remuneration and assuring competitive rewards for better performance. The organisation also offers an array of flexible benefits to cater to the requirements of employees and their family members.
- Health care organisations around the world are emphasising on well-defined disciplinary and grievance policies to ensure a fair work environment for the employees. The procedures are designed in compliance with the labour laws of the host country. Further, these procedures are accessible through employee manuals and interactive sessions are conducted to create adequate awareness about the policies and procedures.
- Initiatives to improve teamwork and communication are prolific in international health care firms. Organisations conduct numerous events to instil team spirit among the employees. They also encourage usage of online and offline platforms to gather employee feedback and instil the culture of open communication.
- Global health care facilities prioritise on employee engagement to retain the best talent. The units conduct annual surveys to measure the extent of employee

engagement like organisational climate survey, organisational culture survey, employee satisfaction survey, employee perception survey, employee engagement surveys, etc. The results of the survey help the organisation to identify grey areas and generate recommendations as well as action plans to enhance the engagement level of the employees.

The gloomy situation of human resource practices of the Indian health care units offers a set of opportunities and challenge at the same time. The health care organisations need to realise that a skilled and satisfied workforce is the key to the attainment of business goals. The examples of top private hospitals highlight only countable HR measures towards enhancing the QWL of the employees. The people management practices of leading health care providers of the country foretell the poor HR practices in middle and small health care units. The need of the hour is to design short term and long term novel QWL measures to attract and retain a skilled workforce in health care organisations. Further, the industry can adapt the human resource initiatives of global health care organisations to optimise the resources of the current system.

This chapter exemplifies the organisational measures in international and Indian health care units to enhance the QWL of the employee. The cases of seven global health care organisations have been discussed to understand the HR measures that have enabled the organisations to reduce employee turnover. Considerable efforts have also been made to identify benchmarked QWL measures that can be applicable in Indian health care units. QWL practices are scarce in private health care units as the priority is on reducing operational costs rather than on ensuring employee well-being. The synchronised efforts by Indian private health care units to augment QWL of employees can address staff shortages, improve service delivery and boost the performance of the overall health care system.

Chapter 3

Overview of Indian Health Care Sector

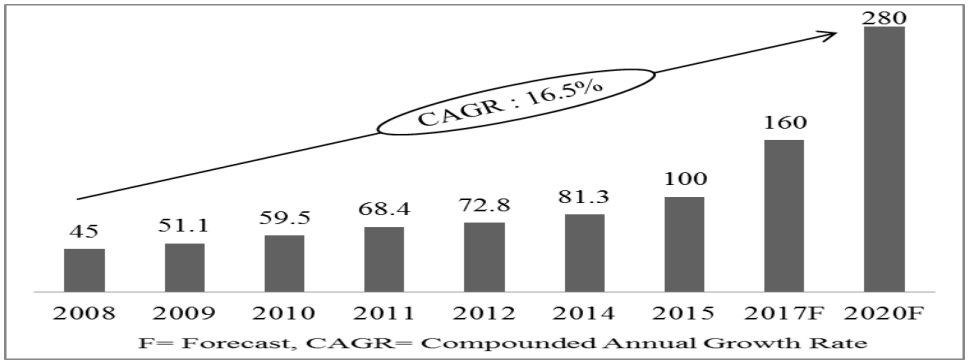
This chapter provides an outline of the Indian health care sector by highlighting on the structure, administrative levels, policies, infrastructure, accreditation and expenditures. It further explains the role of the private players in this sector and accentuates on the status of the health care workforce. Finally, the chapter enumerates the human resource management challenges of the Indian health care sector. The information relating to the Indian health care system was extracted from published literature in the Indian context and government reports. This work is limited to nurses, pharmacist, laboratory technicians, and radiology technicians employed in private health care sector. The available information on private health employees is inconsistent. Thus, the statistics provided in this chapter are of approximate values.

3.1 Indian Health Care Sector

India has emerged as one of the largest economies in the world with a potential to grow bigger, be more equitable and ascend as a global power. The immediate concern of the policy makers in the country is the health and wellbeing of the population, who are the backbone of the emerging economy. The progressive upsurge of health care consumption in the country can only be gratified through an efficient and holistic health system. Srinivasan (2004) suggested four criteria for a perfect health care system, which are universal access to satisfactory service; fair distribution of financial costs with a continuous improvement in the system; training for the health care providers to ensure competence, empathy, accountability and quality as well as adapt insights from pertinent research works; and provision of specialised care for women, children and elderly.

Health care is the largest service sector in India. It is projected to grow from USD 45 billion in 2005 to USD 160 billion by 2017 with an expected CAGR of 16.5 percent (Figure 3.1). The advancement of health care sector has been driven by population growth, improved health insurance penetration, increased disposable income, government initiatives and emphasis on public-private partnership (PPP) models. This sector is equipped with erudite knowledge, technologies and interventions for the delivery of health services to the population, but there are considerable deviations between the current and

expected health outcomes. Further, the health care system is also burdened with substantial challenges like improving universal access, affordability and quality of health services, dynamic trends of diseases, reducing mortality rates, improving physical infrastructure, coverage of health insurance, shortage of trained health care workforce, etc. The enormous health care requirements of the country are juxtaposed against the inadequate financial resources and managerial capacities of this sector. Thus, the existing health system is incapable of making optimum utilisation of these interventions to deliver services to the citizens in a comprehensive and adequate way.

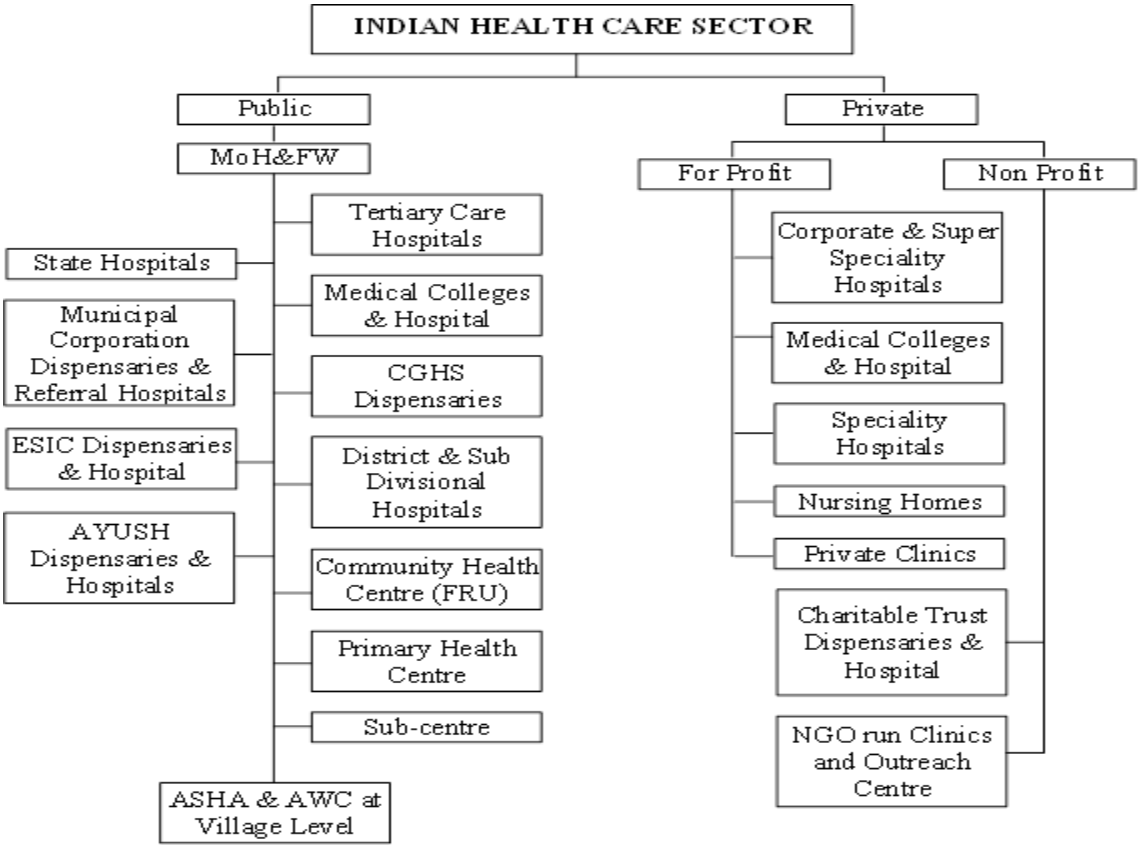


Source: India Brand Equity Foundation (2016)

Figure 3.1: Growth Trend of Health Care Sector (in USD)

3.1.1 Structure of Health Care Sector in India

The World Health Organization (WHO) (2006) defines health as 'a state of physical, mental and social well-being and not merely the absence of disease or infirmity'. The constitution of India divides the areas of operation in health under union list, state list and concurrent list. 'Health' is a subject in the state list. The Central government is responsible for policy formulation, planning, mentoring, assessing and coordinating the functions of the regional health systems and providing financial assistance for implementation of national programmes. The respective state governments manage their distinctive health systems and are accountable to enhance the nutrition level, living standard and health of the people. The concurrent list includes sections that have widespread influence on the national scale like medical education, population control, preventing food adulteration, quality of manufactured medicines, etc.



Source: Swedish Agency for Growth Policy Analysis (2013)

Figure 3.2: Structure of Indian Health Care Sector

The health care services in India comprises of a complex plurality based on medicine systems, ownership patterns and delivery structures that hinder the development of an organised health care system. The Indian medicine system involves two sub-systems allopathy and AYUSH (Ayurveda, Yoga, Unani, Siddha and Homeopathy). Allopathy is the primary medicine system of the country. The criterion of ownership pattern divides health care system into public and private service providers (Figure 3.2). The ownership in the public sector is distributed among the Centre, State, municipalities and village panchayats. The network of public health care facilities includes medical colleges, tertiary hospitals, state hospitals, district and sub-divisional hospitals, community health centres (CHCs), primary health centres (PHCs) and sub-centres. These facilities provide health services to the population either free of cost or at subsidised rates. The public health system also extends its facilities to specific working groups like 'Employees' State Insurance Corporation' (ESIC), 'Central Government Health Service Schemes' (CGHS), defence, railway, mines, telegraphs and posts, etc. The ownership in private sector comprises of 'for profit' and 'not for profit' organisations. The 'for profit' organisations

may have individual, partnership, cooperative or corporate ownership. The ‘not for profit’ organisations are owned by trusts, societies or non-government organisations (NGOs). They constitute of an entire spectrum of health care facilities like corporate hospitals, super speciality hospitals, non-corporate hospitals, nursing homes, clinics and diagnostic centres. Thus, the public health units mostly deal with disease prevention and control while the private health care units are concerned with the curative aspects (Ministry of Statistics and Programme Implementation (MOSPI), 2015).

3.1.2 Levels of Administration in Public Health Care System

The Indian government plays important roles at multiple levels of the health care system. The administrative body at the Centre is the Ministry of Health & Family Welfare (MoHFW). It is the chief authority to plan and implement appropriate programmes in the areas of health and family welfare, prevention and control of communicable diseases and promotion of traditional and indigenous systems of medicine in the country. Further, the MoHFW also assists States in health matters by providing financial and technical assistance. MoHFW consists of three departments: health and family welfare, AYUSH, and health research. A Secretary to the Government of India (GoI) heads each department. A technical wing, the directorate general of health services (DGHS), supports the department of health and family welfare. The DGHS renders technical guidance on all medical and public health matters and plays a proactive role in the execution of many health schemes.

There is a parallel system at the State level where health comes under the scope of the department of health and family welfare that is headed by a minister with a state directorate of health services. The district health service units are responsible for better health care and proper nutrition of the adults and children of a district. These units are like middle-level management organisations, headed by a chief medical officer and health officer. They have overall responsibility for the health and family welfare programs in their districts as well as implementing programs developed at the State and national levels. The districts are divided into blocks that are served by ‘Anganwadi workers’, ‘accredited social health activists’ (ASHAs), ‘auxiliary nurses and midwives’ (ANMs) and health workers. At the sub-district level, the assistant district health and family welfare officer (ADHO) oversees the health care services. Finally, at the community level, there are peripheral level structures such as CHCs, PHCs and sub-centres. In urban cities, the health

system is managed by the local administration, which is Municipality or Municipal Corporation.

3.1.3 National Health Policy (NHP)

The first NHP was drafted in the year 1983 by adopting the policy directives of Alma-Ata Declaration, 1978 with the goal of "Health for All". The second NHP was framed in the year 2002 with an aim to attain a satisfactory level of good health among the citizens by the year 2015. The policy had two options either to address various priorities or the operational alternatives of the health care system. It eluded the inflated claims to be the health care roadmap to fulfil the health needs of the citizens but recommended a differing emphasis on different policy components. The policy broadly focused on the requisites of higher inflow of funds and structural modifications to ensure fairness in the availability of health services as well as underwriting resources to reduce the disease burden of the country. The policy broadly envisaged several approaches to fulfil its objectives like:

- Ensure equity by improving primary health facilities and provisioning of essential drugs through central funding
- Enhancement of the sanctioned central government budget for delivery of health service in States with the possibility of imposing an earmarked health cess
- Encouragement for participation of different groups like state government, NGOs, and other institutions of civil society in health sector
- Enhance the empathy and commitment of public and private health providers by improved standard of governance
- Establish national health accounts, confirming to 'source user matrix structure' to consolidate database and estimate health cost on a continuous basis (MoHFW, 2002)

The MoHFW has prepared a draft for National Health Policy 2015, which is waiting for approval. The primary goal of the National Health Policy, 2015 emphasises on attaining the utmost level of good health and well-being of the citizens. It focuses on orienting all developmental policies towards preventive and promotive health care and providing widespread access to high-quality health services without economic burden. The foundation of the policy is constructed on the essential doctrines of equity,

universality, patient centeredness, quality of care, inclusive partnership, pluralism, subsidiarity, accountability, professionalism, integrity and ethics, learning and adaptive system, and affordability. The Policy envisages an implementation framework, which will serve the following functions:

- Specify the sanctioned financial allocations and link it with quantifiable outputs and timelines
- Identify administrative reforms by forming proper protocols and guidelines that can govern public funding
- Provide strategies for institutional design and improve institutional capacity to deliver services
- Design strategic policies to manage human resource in health sector
- Restructure the organisations necessary for better control and administration of health services at all levels
- Ensure distribution of powers, functions and accountability between Centre and States to efficiently review the individual and overall performance of health care system (MoHFW, 2015a)

3.1.4 National Health Mission (NHM)

The NHM works towards offering the widespread availability of fair, reasonable and superior health care services that is responsible and receptive to the requirements of the people. It comprises of two submissions, the 'national rural health mission' (NRHM) and the 'national urban health mission' (NUHM). NRHM is the first health programme in a "Mission Mode" which was launched in 2005. NRHM seeks to offer superior health care services for the people in rural areas. The mission's objective is to build a health delivery system that is decentralised, operational, owned by the public and involves stakeholders of all sectors at various levels. It further pursues the concurrent goals of encouraging community activities related to extensive arrays of health determinants such as water, sanitation, education, nutrition, social and gender equality. NRHM envisages increasing government health spending, decreasing disparity among the States on health infrastructure, pooling resources, integrating different administrative structures with the national health programmes, decentralising and management of health programmes at the district level and transforming CHCs into standardised hospitals. The formal structure of

NHRM includes hierarchical bodies at the village, district, State and Centre. Each state consults the Mission Steering Group and chooses a specific model for implementation of the programme. NHRM programme stimulates the concept of ASHA at the village level to facilitate household access to health care. The programme encourages the district health mission and the village health committees under each Panchayat to prepare and implement the district health plan and village health plans respectively (National Health Mission, 2016a).

The NUHM strives towards enhancing the availability of health care services to people in the urban area, with special emphasis on urban poor. It facilitates the accessibility of primary health care services and reduces the out of pocket expenditure of the people. NUHM endeavours to accomplish its objective through the:

- Design of urban health care system that caters to various health care necessities of the urban poor and which is tailored to the needs of a particular place and its people
- Recognition of the health care challenges of the urban population through proper governing machinery and control system
- Proactive participation of the local bodies and community in planning, execution, and monitoring of health activities
- Provisioning adequate resources to provide necessary primary health care to the poor in urban areas
- Collaborations with 'for-profit' and 'not-for-profit' organisations, NGOs, and other stakeholders

NUHM covers the areas comprising of greater than 50000 people, which are mostly capital of the States, cities, district headquarters and towns. The programme focuses on slum dwellers, rickshaw pullers, street vendors, railway and bus station coolies, homeless people, street children, construction site workers, etc. The financing pattern between Centre and State is in the ratio of 75:25 except few states in which the pattern is 90:10. The individual states design the programme implementation plans (PIPs) for NUHM, which is approved by the MOHFW (National Health Mission, 2016b).

3.2 Public Health Care Infrastructure

The health care infrastructure is the core support for delivery of health care services to the people. The health care infrastructure includes primary, secondary or tertiary facilities. The primary facilities have general physicians, who provide basic care. The secondary facilities are clinics or middle-sized hospitals providing specialised services like dental, maternity and surgery. The tertiary facilities refer to multidisciplinary large hospitals that provide advanced treatments, are staffed by highly skilled surgeons and experts, and invest heavily in equipment and infrastructure. The health care units covering these facilities comprise of both public and private players, but the upper and the middle class have a greater affinity towards private health care providers. Only 23.5 % of urban population and 30.6% of the rural people choose government facilities, thus reflecting the widespread deficiency of trust in the public health care services (Chatterjee and Srinivasan, 2013).

Table 3.1: Health Care Infrastructure (Public)

Type of Facilities	***Numbers***
Sub-Centres	153655
Primary Health Centre (PHC)	25308
Community Health Centre (CHC)	5396
Rural Hospitals (sub-district/divisional hospitals)	11420
Urban Hospitals (district, state hospitals)	3490
Medical Colleges	200

Source: MOSPI (2015)

In the public sector, the primary facilities include sub-centres and PHCs; the CHCs, sub-district/divisional hospitals constitute the secondary facilities; and district hospitals, state hospitals and medical colleges comprise the tertiary facilities (Table 3.1).

- Sub-centre is the initial point of contact between primary health care system and the public. It is staffed by one ANM/ female health worker and one male health worker. It provides services regarding maternal and child health, prevention of diseases and health counselling. Six sub-centres are supervised by one lady health visitor (LHV).
- PHC is the initial point of contact between village population and the medical officer. It consists of a medical officer and other support staff. It is the referral unit for six sub-centres and has 4-6 indoor beds. It delivers services related to cure and

prevention of diseases along with the promotion of health and family welfare services.

- CHC is established and maintained by the state government. It comprises of four medical specialists supported by twenty-one paramedical and other staffs. It has thirty indoor beds with one operation theatre, radiology unit, labour room and laboratory facilities and serves as a referral unit for four PHCs. It provides services on emergency maternity care and other specialist consultations (Ministry of Health & Family Welfare (MoHFW), 2016).
- The rural hospitals comprise of sub district/ divisional hospitals. It has around twenty to thirty medical specialists supported by forty five to seventy paramedical and other staff. It has around thirty to hundred indoor beds with specialised services. It provides outdoor, indoor and emergency services and serves as a referral centre for all primary facilities in the sub district or division.
- The urban hospitals constitute the district hospitals and state hospitals have around thirty to seventy medical specialists supported by eighty to three hundred twenty five nurses, paramedical and other staff. It has around seventy five to five hundred indoor beds with super-specialty services. It provides outdoor, indoor and emergency services with a focus on new-born care, psychiatric services, physical medicine and rehabilitation services, accident and trauma services, dialysis services and anti-retroviral therapy.
- Medical colleges constitute the formal educational system that prepares the skilled human resource pool for health care delivery: doctors, nurses and technicians respectively. It has a hospital attached with it to provide practical exposure to students as well as super speciality services to the patients.

3.3 Health Care Accreditation

'Accreditation is a process in which an entity, separate and distinct from the health care organisation, usually non-governmental, assesses the organisation to determine if it meets a set of requirements designed to improve the quality of care' (Joint Commission International, 2013). Accreditation is an effective quality evaluation and management tool for health care organisations. It is a continuous procedure of periodic assessments by the accrediting body. The decision to undertake the accreditation process is voluntary in nature. The willingness of an organisation to be accredited shows its commitment towards

quality patient care and ensures a safe environment for the patients and the employees. The assurance of quality health care is a vital concern for health care institutions in the country. The quality council of India (QCI) was established in the year 1997, as an independent body that runs the national accreditation structure and acquires international recognition for its accreditation schemes. The accreditation bodies existing in the country are 'Joint Commission International' (JCI), 'National Accreditation Board for Hospitals and Healthcare Providers' (NABH) and 'National Accreditation Board for Testing and Calibration Laboratories' (NABL). These accreditation organisations gauge the regulations, safety guidelines, and practices of the health care units.

JCI is the international division of the 'Joint Commission on Accreditation of Healthcare Organizations' (JCAHO) based in the USA. It is a non-profit enterprise that is a renowned leader in international health care accreditation. It ascertains, measures, and shares benchmarked practices on health care quality and patient safety with the world. JCI has been working with health care organisations, health systems, government ministries, public health agencies, academic institutions, and businesses of 90 countries since 1994. JCI accreditation is considered the gold standard in global health care. It establishes uniform and realisable expectations for structures, processes and outcomes for health care organisations by accommodating the explicit legal, religious and cultural factors of a country. JCI provides accreditation for a range of health care facilities like general hospitals and academic medical centres, ambulatory care facilities, clinical laboratories, home care agencies, long-term care organisations, medical transport organisations and primary care services. JCI was launched in India in 1999 and has accredited 28 organisations in India as on July 2016 (JCI, 2016).

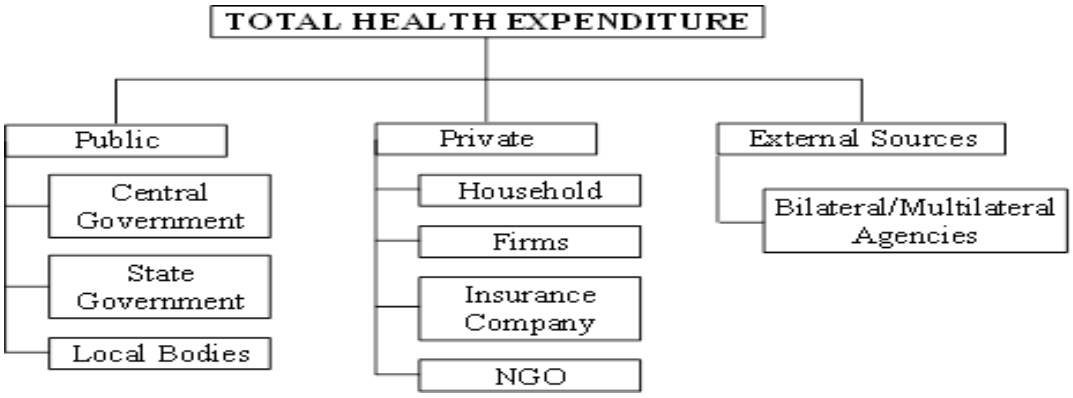
NABH is a constituent board of QCI, which was created to establish and operate accreditation programme for Indian health care organisations. The board is designed to cater to needs of the consumers and to set benchmarks for progress of health care industry. The first set of NABH standards for hospital accreditation was released in 2006 keeping the Indian ethos and working environment in mind. The NABH standards concentrate on every feature of service delivery like patient rights and education, infection control practices, trained and experienced staff, infrastructure, environment safety, processes and controls, and statutory and regulatory compliances. NABH suggests the creation of an "in-house core committee" to implement the prescribed standards. The committee consists of representatives from hospital administrative departments along with nursing and medical faculties. The committee is responsible for drafting a quality manual for all departments

and overseeing the implementation and monitoring of standards. NABH advocates a culture of continuous quality improvement. Experiences show that the nursing staff, technicians and support staff are the most responsive to the constant stimulation of the core committee while the medical faculty is slow to embrace the change (Dastur, 2012). The number of NABH accredited hospitals in India is 394 as on July 2016 (NABH, 2016). NABL is a self-governing body under the Department of Science and Technology (DST), Government of India. It has been set up to offer accreditation to conformity assessment bodies through a third-party evaluation. The process measures the technical proficiency of testing including medical, and calibration laboratories. NABL is the only accreditation agency that is authorised by the Central government for voluntary accreditation of medical laboratories. NABL has accredited around 713 medical laboratories as on July 2016 (NABL, 2016). The scope of NABL's accreditation is limited to medical laboratories that conduct testing in clinical biochemistry, clinical pathology, haematology and immunohematology, microbiology and serology, histopathology, cytopathology, and genetics and nuclear medicine.

3.4 Health Care Expenditure

"Total health expenditure is the sum of public and private health expenditures as a ratio of total population. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but, does not include the provision of water and sanitation" (World Bank, 2016). It is classified as public, private and external sources of funding (Figure 3.3). Public health care expenditure includes expenses incurred by government and social security funds. Private health care expenditure comprises of expenses by households (out of pocket payment), private health insurance and other private funds (NGOs and private firms) (MOSPI, 2015). The Central government spends directly on national health programmes and provides grants-in-aid to State governments for incurring health expenditure. The state governments spend the Central government grants-in-aid and incurs about two-thirds (67%) of the total public health care expenditure from the state level resources. The State government also provides funding to the rural and urban local bodies for health care spending. Thus, the local agencies also incur health care expenditure from their financial resources. The total of health care expenditure by each of these three levels of the

government offers an approximation of the total public spending on health in India (Choudhury and Nath, 2012).



Source: MOSPI (2015)

Figure 3.3: Classification of Health Care Expenditure in India

In table 3.2, the national health indicators reveal that the private sector contributes to around seventy percent of the total health care expenditure. India ranks among the top twenty countries in the world for private health spending. The 'out of the pocket' expenditures accounts for about 89% of the health expenditure in India. The remaining 11% of private expenditure is financed through insurance providers, firms and NGO. The spending on drugs comprises of 88% of the total out of pocket expenses (Central Bureau of Health Intelligence (CBHI), 2015). The private health care expenditure is increasing because the health policy of India promotes the private sector to provide curative services through subsidies, tax exemptions, and soft loans for setting up health care facilities (Ravichandran, 2009).

Table 3.2: Health Care Expenditure in India (2010-2014)

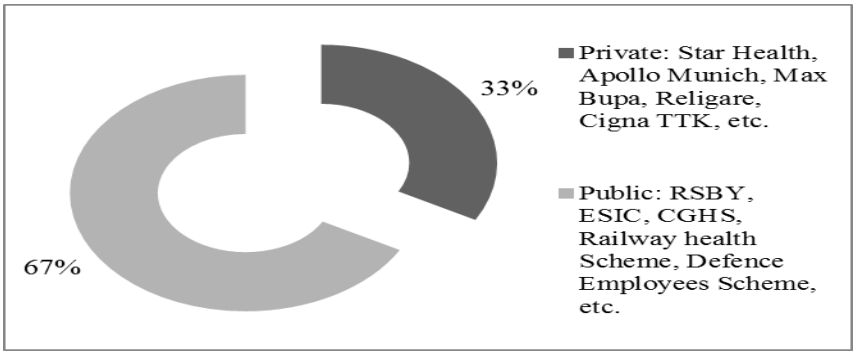
National Health Indicators	***2010***	***2011***	***2012***	***2013***	***2014***
THE as % of GDP	4.28	4.33	4.39	4.53	4.69
PubHE as % of GDP	1.16	1.18	1.18	1.29	1.41
PubHE as % of Total Government Expenditure	4.29	4.42	4.49	4.66	5.05
PubHE as % of THE	27.13	27.14	26.97	28.41	30.04
Social Security Funds as % of PubHE	4.93	5.77	6.40	6.18	5.70
PvtHE as % of GDP	3.12	3.16	3.21	3.24	3.28
PvtHE as % of THE	72.87	72.86	73.03	71.59	69.96
Out of Pocket Expenditure (OOPS) as % of PvtHE	86.96	88.43	88.85	89.14	89.21
Private Insurance as % of PvtHE	4.45	3.05	2.74	2.54	2.54
External Resources on Health as % of THE	1.27	1.06	1.15	0.89	0.95

Note: *GDP: Gross Domestic Product, THE: Total Health Expenditure,PubHE: Public Health Expenditure, PvtHE: Private Health Expenditure*

Source: World Health Organization, Global Heath Expenditure Database (2016)

3.4.1 Health Insurance

Health insurance is a prominent practice of medical protection worldwide, but it is in its infancy in India. An estimated 216 million people are covered by health insurance in India. Figure 3.4 depicts that the government-sponsored insurance schemes cover approximately 145 million people (67%) while approximately 70 million people (33%) rely on private health insurance (CBHI, 2015).



Source: Central Bureau of Health Intelligence (2015)

Figure 3.4: Coverage of Health Insurance

The Central and State governments sponsored insurance schemes include CGHS, ESIC, 'rashtriya swasthya bima yojana' (RSBY). The CGHS was initiated in 1954, that provides inclusive health care facilities for the central government employees, pensioners and their dependents residing in CGHS covered cities. The medical facilities include wellness centres/polyclinics under Allopathic and AYUSH systems of medicines. Currently, it has 276 allopathic dispensaries, 19 polyclinics, 85 Ayush dispensaries, 3 yoga centres, 73 laboratories and 17 dental units. It has a beneficiary base of 36, 67,795. The subscription rate for CGHS membership ranges from Rs. 50/- to Rs. 500/- depending upon the grade pay drawn by the employee.

The proclamation of Employees' State Insurance Act, 1948 was the first major legislation on social security for workers in independent India. It is a cohesive need based social insurance scheme that safeguards the interest of workers during contingencies such as sickness, maternity, temporary or permanent disablement, occupational disease or death during work, ensuing in loss of total or partial wages or earning capacity. It also assures the provision of sound health care services to the worker and their dependents. ESIC is a contributory scheme on the patterns of social health insurance. The existing wage-limit for

coverage under the Act is Rs. 15000/- per month. There is no ceiling on the health care expenses of an insured person and treatment can be availed at primary, secondary and tertiary facilities.

The RSBY was introduced in 2007 to cater to the need of health insurance for the poor. It provides 'cash-less', smart card based health insurance with an annual coverage of `Rs. 30,000 to every insured household of five persons. The beneficiary household contributes an annual registration/renewal fee of thirty rupees. The scheme covers hospitalisation expenses (excluding outpatient expenses) that include obstetric care and other diseases. The beneficiary gets a conveyance fee of Rs. 100 for each visit. The beneficiaries have the freedom of choosing between the participating public or private facilities to receive services. The RSBY covers the below poverty line (BPL) families, building and other construction workers, MGNREGA beneficiaries, street vendors, beedi workers, and domestic servants. The State governments select a public or private insurance company through a bidding process to deliver health insurance services to a certain category of population. The Central and State governments fund the premium payable to insurance agencies in a ratio of 90:10 (Planning Commission, 2013).

The benefits government sponsored health insurance like CGHS and ESIC are available only to privileged individuals and those working in the organised sector. The RSBY was launched to cover the poor sections of the society, but still, there is low coverage of health insurance in the country. The national sample survey organisation (NSSO) statistics indicate that over 80% of the country's population (86 per cent of the rural population and 82 per cent of the urban population) is not covered under any health insurance scheme (public or private) to support health expenditure. The public-funded insurance schemes are accessed by only 12 per cent of urban and 13 percent of the rural population (Bansal, 2016).

3.5 Private Health Care Sector

The private sector has been the dominant provider of health care services since the inception of Indian health care system in the 1950s. In the period of 1947 to 1970s, the sector comprised of clinics providing primary and secondary care set up by individual practitioners. The period of the 1970s to late 1980s experienced the growth of small hospitals (less than 30 beds) in urban areas that provided primary and secondary care and were owned and managed by doctor entrepreneurs. The phase after the 1990s to till date

has seen the massive rise in large tertiary care hospitals and corporate hospital chains. The private health care providers mostly have a commercial or charitable goal to provide the population with treatment for ailments or protection from diseases. They mostly comprise of big or small business, group of medical practitioners, individual providers, and NGOs. The private facilities deliver services through hospitals, nursing and maternity homes, clinics, diagnostic facilities, and sale of drugs through pharmacies (Mills et al., 2002). Table 3.3 showcases that 80 percent of the private hospitals are small clinics and nursing homes (less than 30 beds), 6-7 percent are 30-100 bed size hospitals, and only 2-3 percent are 100 plus bed hospitals.

Table 3.3: Classification of Private Hospitals in India

Nursing Homes	***Mid-Tier***	***Top Tier***
Primarily nursing homes and recovery rooms with adequate infrastructure	Non-Corporate hospitals with in-house staff and consulting physicians	Major corporate hospital chain and super speciality hospitals
<30beds	30-100 beds	>100 Beds
80%	6-7%	2-3%

Source: Chatterjee and Srinivasan (2013)

India has the largest private health care sector in the world, which currently treats nearly 80 percent of outpatients and about 60 percent of inpatients. According to NSSO estimate, this sector is highly fragmented with over 40 percent of health services delivered by unorganised, unqualified and unregulated providers. Almost 72 percent of private health care providers are 'own-account-enterprises' (OAEs). These are family run business by doctors, that hire temporary workers and provide them informal training to offer health care services. However, in recent times the OAEs are decreasing due to the rise of private medical establishments and corporate hospitals (MoHFW, 2015a). Furthermore, private health care sector is widespread throughout the country that controls 80 percent of doctors, 26 percent of nurses, 49 percent of beds and 78 percent of ambulatory services (Planning Commission, 2012). The health care services in private sector are supposed to be readily available, well managed and more efficient than the public services. However, it is discriminatory, costly, over-indulgent in clinical procedures and without quality standards and regulations. The NHP recognises that limited resources prevents the effective implementation of health programs in the public sector and recommends the States to design processes to encourage the private medical practice. The private health care facilities are subject to very less legal regulation, which is limited only to registration of the units at the state health department. The lack of the

guidelines in the private sector is affecting quality and cost of care. In contrast, the public sector does not have problems of regulation but have the limitation of access to care and quality. Thus, the patients resort to private sector due to poor service quality in public sector delivery, which is spliced with the non-availability of essential drugs (Debroy, 2013).

3.5.1 Public Private Partnership (PPP)

The vast existence of the private sector in health care sector has encouraged several State governments in India to explore the alternative of creating partnerships with private players to fulfil the emergent health care demands of the citizens. A PPP is a synergistic mode to bring together the social objective of universal health care access and affordability as well as the business objective of running a successful health facility. The public sector contributes to infrastructure development, land acquisition, financing, etc., and the private sector contributes its knowledge and expertise of project management and operational efficiency (KPMG, 2010). In a PPP, the government contributes the strength of its purchasing power, frames the goal for an optimal health system, and empowers private enterprise to innovate, build, maintain and manage the delivery of agreed-upon services over the term of the contract (Planning Commission, 2012). Further, the PPP arrangement is bound to comply with the regulations, adhere to treatment standards and offer inexpensive service. The 'not for profit public private partnership' (NPPP) model is also a viable option to expand capacities of tertiary care facilities. The most popular health care PPP model is 'contracting'. There are several types of contracting like contracting in, contracting out, service contract, operations and management contract, and capital projects with operations and maintenance contract. Some of the PPP initiatives in India are Ayush Graham Bhawali Project (Government of Uttarakhand and Emami Ltd.), Telemedicine Initiative (coronary care units of some public district hospitals in Karnataka with Narayana Hrudayalaya Hospital), Emergency Ambulance Services Scheme (World Bank, Seva Nilayam and Government of Tamil Nadu), and Community Health Insurance Scheme (Karuna Trust, National Health Insurance Company and Government of Karnataka).

3.6 Health Care Workforce in India

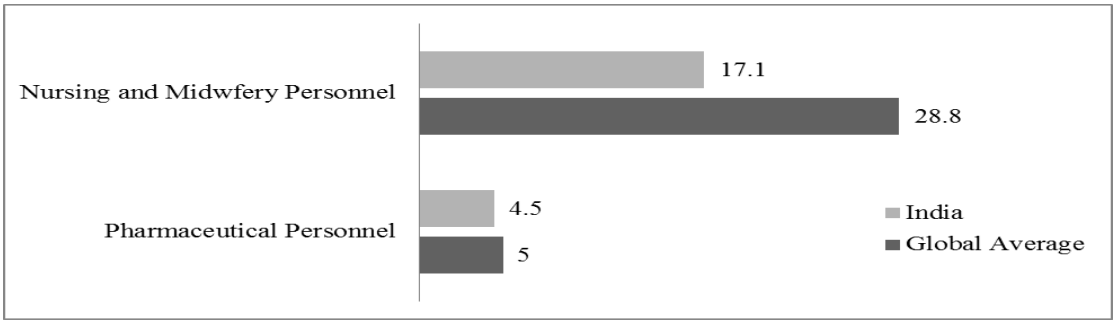
Indian health care workforce is complex by its nature with various types of personnel providing health care services. According to revised National Occupation Classification (2004) Indian allopathic system of medicine, include doctors (both general and specialists), nurses and allied health workers. There is a dearth of complete information about the human resources for health care across public and private sectors. The present records of professional councils like Nursing Council of India and Pharmacy Council of India are cumulative and do not exclude attrition, death, retirement, migration, etc., due to the absence of periodic renewal of registration. The MoHFW annually publishes the rural health statistics bulletins (RHS) and national health profile (NHP) that includes data of particular categories of employees only and excludes the employees in private sector. Apart from the RHS and NHP, the researcher has retorted to multiple sources like World Health Statistics, National Skill Development Corporation report, Public Health Foundation of India report, Planning Commission reports, etc. to derive data on human resource for the health care sector. There may be considerable variability in the coverage and quality of data due to the vast diversity of available information sources. The figures may be underestimated or overestimated; it may not include health workers in the private sector and those working in unpaid or unregulated conditions, or not currently engaged in the Indian health care sector.

Table 3.4: Educational Qualification of Health Care Workers

Category of Workers	*Educational Qualification*
Nurses and Midwives	1 ½ year diploma in auxiliary nurse and midwife/ health worker (ANM) or 3 ½ year diploma in general nursing and midwifery (GNM), four-year bachelor degree, or two-year postgraduate degree
Pharmacists	Two year diploma or four year bachelor or 2 year master in pharmacy
Laboratory Technicians	Two year diploma or three-year bachelor in medical laboratory technology
Radiology Technicians	Two year diploma or three-years bachelor degree in medical radiology technology

Competent and skilled human resources are the primary elements of an efficient health care system. Annually, the medical education sector of India produces more than 1.1 lakh nurses, 54,000 ANMs, 44000 pharmacists, 5500 laboratory technicians, 3200 radiology technicians (MoHFW, 2016; Narayan and Gupta, 2012). The medical colleges and institutes are unequally distributed in the country along with extensive inequalities in

the quality of education (HLEG, 2011). The federation of 29 states and 7 union territories consists of 640 districts, out of which only 193 districts have a medical college (Planning Commission, 2012). The maldistribution of health care workers across states may be a result of the variances in the production capacity of each state (Rao and Ramani, 2014).



Source: WHO (2015), Authors Compilation

Figure 3.5: Density of Health Care Employees per 10,000 Populations

The World Health Statistics is released every year by WHO that provides data on human resources available for a health system. India is approaching the WHO norm of 25 skilled health workers (doctors, nurses, midwives) with 24.1 skilled health workers (7 doctors, 17.1 nurses and midwives) per 10,000 population (World Health Organization, 2016). The densities of health care employees displayed in figure 3.5 refer to the current workforce involvement in the Indian health care sector. The nursing and midwifery personnel include all categories of nurses while the pharmaceutical personnel include pharmacists, technicians and assistants. The density of nursing and midwifery personnel per 10,000 populations is far below the global average although the density of pharmaceutical personnel per 10,000 populations is drawing near the global average. The estimates of public health sector depict the shortage of workers to cater to the health care requirement of the citizens. However, there is no documentation on the workforce estimates of the private health care sector.

Table 3.5: Percentage of Positions Vacant and Shortfall in Public Health Facilities

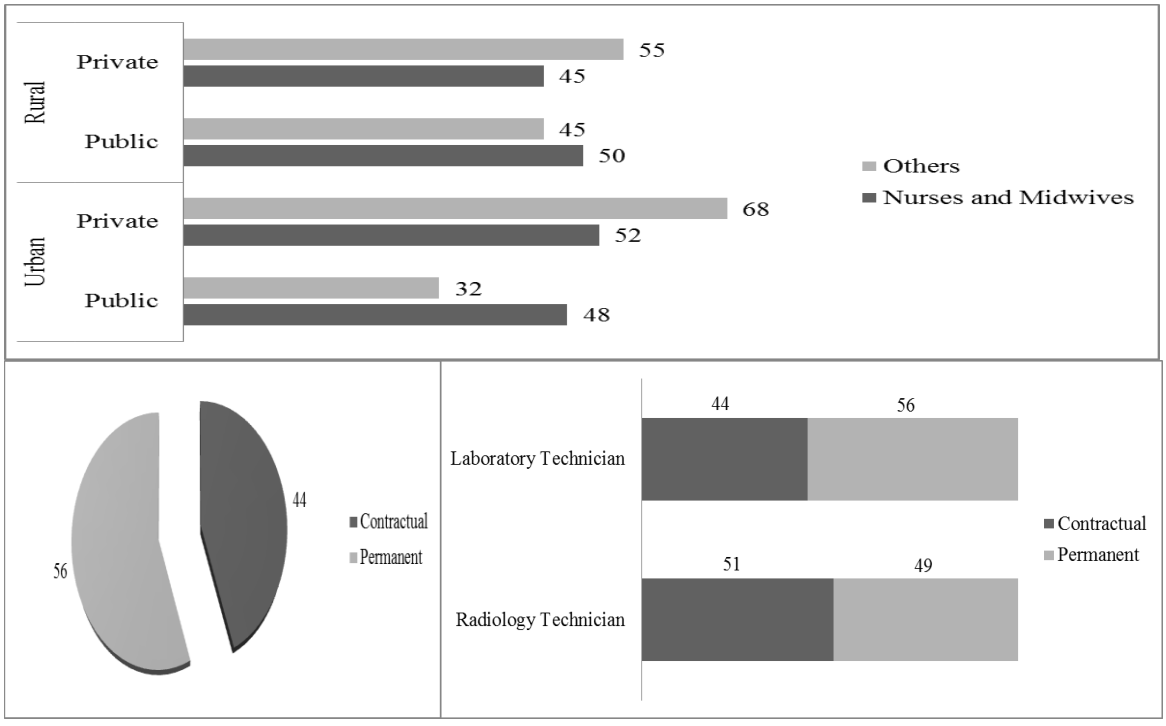
Type of Facility	Sub-Centre		PHC		CHC		DH	SDH
Category of Workers	PV	S	PV	S	PV	S	PV	PV
Radiographer	-	-	-	-	48	63		
Laboratory Technician	-	-	38	-	27	44		
Pharmacist	-	-	21	-	19	27	0.9	0.8
ANM/Health Worker Female/ Nursing Staff	10	0.02	13	21	15	20		

Health Worker Male	40	63	-	-	-	-	-	-
Health Assistants (Female)/ LHV	-	-	41	49	-	-	-	-
Health Assistant (Male)	-	-	46	61	-	-	-	-

Note: *PHC: Primary Health Centre, CHC: Community Health Centre, DH- District Hospital, SDH: Sub-District/Sub-Divisional Hospital, ANM: Auxiliary Nurse Midwife, LHV: Lady Health Visitor, PV: Position Vacant, S: Shortfall*

Source: MoHFW (2015b), Authors Compilation

Table 3.5 depicts the percentage of positions vacant in the sanctioned positions and the percentage of the shortfall in required positions in different types of health care facilities and category of workers. In particular, the trends show a critical lack of radiographers and lab technicians in rural health care system due to poor incentives to serve in the rural areas. The health care workforce requirement is projected to rise from 35.9 lakh in 2013 to 74 lakh in 2022. Therefore, the industry requires specialised and highly skilled manpower to deliver superior service and meet the growing burden of tertiary and quaternary care (National Skill Development Corporation, 2013).



Source: National Skill Development Corporation (2013), Authors Compilation

Figure 3.6: Distribution by Sector and Nature of Employment of Health Care Employees (in %)

Figure 3.6 shows the distribution of health care employees across the private and public sectors. There is a poor distribution of health workers in rural areas, where more

than two-thirds of the population resides. Most of the health workers are engaged in the private sector that is concentrated in urban areas leading to increase in the urban-rural disparity. Nurses are more evenly distributed across the sectors, with 50% nurses and midwives working in the private sector. The others include laboratory, radiology technicians and assistants, which are mostly engaged in the private sector. Almost 56% of the workforce of this sector is hired on a contractual basis, which is more prevalent among laboratory (44%) and radiology technicians (51%). The private sector encourages the recruitment of unqualified nurses and technicians due to lack of regulations, easy availability and low operational cost. In recent times, there have been few efforts to develop regulations to ensure that workers have appropriate medical education and employers adhere to the basic standards of cleanliness and safety in the workplace (Joumard and Kumar, 2015). However, these regulations are still pending with the government machinery.

3.6.1 HRM Challenges in the Health Care Sector

- *Shortage of skilled manpower*: The shortage of skilled health care workers (nurses, pharmacists, laboratory technicians and radiology technicians) to meet the requirements of the growing population has been appropriately recognised by the policy makers. Several strategies have been adopted in the public sector to overcome this shortage like creating a unit of ANMs, ASHAs and contractual appointment of health care workers. However, these strategies have only ensured the provision of minimum care rather than superior care at the primary facilities. In the private sector, the number of workers necessary in a facility is decided by the individual organisation as per their requirements. The requisite number of employees currently in private health care units is below the standard norms, and the workers are engaged to perform multiple functions to reduce operational costs. Further, the lack of skilled work force in the labour market leads to the hiring of unqualified workers in private health care facilities.
- *Lack of quality in education and training:* The medical colleges and training institutes have a lack of uniformity in the course curricula, competent faculty, and standards of training that pose a threat to the quality of education and skills of the health care workers. Further, the inclusion of the private players to build more medical colleges and institution has paved the way for questionable standards and

development of a group of nominally skilled staffs. There is also the absence of national standards and benchmarks for accreditation and regulation of the private medical education/training institutions. The HLEG (2011) had recommended the formation of 'District Health Knowledge Institutes' (DHKIs) in districts having greater than 500,000 population to develop the quality of education and training as well as the 'National Council for Human Resources in Health' (NCHRH) to recommend, regulate and endorse standards for medical education. However, these policies have not yet been executed.

- *Need for better recruitment and retention strategies:* The recruitment of health care employees in public facilities is carried out through procedures prescribed by the State government. Health care workers are reluctant to work in rural and underserved areas, which are addressed by providing financial incentives, reservation of seats for specialist training, and provision of better living conditions. The small and medium private health facilities, recruit the employees through walk-in interviews and recommendations while the large health units have detailed steps for hiring workers. The fresher and less experienced candidates are mostly hired by the former due to lack of skills and non-specialised training. These workers are provided in-house training to improve their skills and receive low compensation leading to low motivation and high attrition in small and medium health care units. The worker after gaining few years of experience migrate from small to larger facilities to pursue better career prospects and quality of work.
- *Poor regulatory mechanisms:* The Clinical Establishments (Registration and Regulation) Act, 2010 was enacted to register and regulate of all clinical establishments (public and private) of the country. This act has not been adopted by 19 states, which claim to have their specific acts. The public sector follows certain norms and standards for operations. However, for the private sector, the scope of the Act is only limited to registration of the establishment, while individual health facilities endorse their own standards. Therefore, there are widespread discrepancies in the service quality as well as employment conditions of the workers across both the sectors. Further, the Nursing Council of India and Pharmacy Council of India regulate the education and registration of nurses and pharmacists respectively. However, there are no provision for registration of

qualified medical laboratory technicians and radiology technicians to practise the profession.

- *Absence of career development:* The career development opportunities are an essential element to maintain the motivation levels of all personnel. There is a lack of well-defined career paths for health care employees across the public and private sectors, which results in crucial discrepancies in work roles, compensation and promotion opportunities at entry and senior positions. There is a dearth of awareness among health workers regarding the qualifications, experience and skills required for promotion to a higher position. Further, the waiting time for the next promotion is also very high. These issues have affected the recruitment and retention of health workers.
- *Lack of performance management and rewards*: The public and private health care facilities do not address the need for performance management of the employees which leads to non-uniform remuneration, lack of competency, low teamwork and poor service delivery. The organisations are doctor-centric and do not involve the employees in making work-related decisions. Further, a lack of rewards and recognition system that should cater to the diverse requirement of all categories of employees has resulted in low motivation levels.
- *Non-availability of information on health care workers:* The fragile database on health care workers across public and private sector hinders efficient manpower planning in the health care system. The workforce data in the public sector has been well documented in the MoHFW documents. However, the workforce data on the private sector is not available due to reluctance and non-disclosure of workforce information from private health care units. Further, there is a requirement for implementation of health human resource information system in national, state, and district levels to know the actual number of health workers contributing in both private and public sectors.

The health care system of India is multifaceted with the public and private sector functioning concurrently to provide health care service to the citizen. The public sector lacks in access and quality of services while the private sector lacks regulations. Thus, the private sector has become the most preferred health services provider, but it comes with a high price. The health care workforces in the public sector are reluctant to work in the

rural destination, which hinders the universal access to care, and their low motivation affects the quality of services. However, the private sector health care workforces are informally trained to play multiple roles in poor working conditions due to lack of regulations. Thus, there is a wide disparity in the work life of health care workers in public and the private sector. Thus, this work endeavours to explore the quality of work life of the most neglected sections of private health care employees such as nurses, pharmacist, laboratory technicians, and radiology technicians.

Chapter 4

Review of Literature and Hypotheses

This chapter provides a background of QWL as well as a global review of relevant works on the study variables. It begins with the definition of QWL and its importance in the current scenario. It also briefly describes the historical development of QWL. Additionally, this chapter provides a comprehensive review of literature on QWL in health care sector, with emphasis on its antecedents and outcomes. Finally, this chapter highlights the gap in the existing literature and proposes a hypothesised research model for validation through analysis of primary data.

4.1 Quality of Work Life

QWL is fundamentally a multidimensional concept that represents the mechanism, which regulates the relationship between individual and their work (Hsu and Kernohan, 2006; Martel and Dupuis, 2006). Robbins (1989:207) defines QWL as a "process by which an organisation responds to the employee's needs by developing mechanisms to allow them to share fully in making the decisions that design their lives at work". Likewise, Sirgy et al. (2001: 242) refers to QWL as "employee satisfaction with a variety of needs through resources, activities, and outcomes stemming from participation in the workplace". Furthermore, "QWL encompasses the physical, technological, psychological and social dimension of work corresponding to the ideals of a more humane and healthy organisation" (Daubermann and Tonete, 2012: 278). Despite widespread recognition of the concept of QWL, there has been a lack of consensus among management scholars regarding its definition and measurement. Lawler (1975) attributed this fact to a wide range of focus concerning research in the areas of QWL. In general, QWL is a construct that deals with the well-being of employees and is significantly different from job satisfaction. From the health care perspective, Brooks and Anderson (2005:323) states QWL as "the degree to which registered nurses can satisfy important personal needs through their expectations in their work organisations while achieving the organisational goals". Similarly, Argentero et al. (2007:A50) outline QWL as "the result of the evaluation that an individual carries out by comparing his/her hopes, expectations and desires with what he/she considers as reality". Several researchers have defined QWL

from a different perspective till date (see Table 4.1). It is observed that some have followed a broad scope to define the concept while others have focused on specific domains of work life or particular context to define it. It has been regarded in a variety of ways including, a movement, a set of organisational intervention and as a type of life experienced by employees during work. QWL is multifaceted, context based, and therefore the concept lacks a universal definition. The unique challenge in this research work is to present a definition that can be adaptable in the health care environment. Thus, for the current study QWL is the "degree to which the edifices of workplace enable the health care employees to accomplish their personal expectations while achieving the organisational objectives".

4.1.1 Importance of QWL

Human resources are the most precious asset of an organisation. Employees are the soft assets and are of hidden value, which can be of competitive advantage for the organisation in the long term instead of capital, technology or product and services. The struggle of organisations to survive and be efficient has accrued research interest around the concept of employees working life. A unique and inimitable workplace can be created by embedding QWL in the socio-technical system of the organisation (Chan and Wyatt, 2007). The growing body of academic and practical concern in QWL is due to the significance of this concept in managing the human resource. QWL is a part of the quality movement and deals with employee development and well-being (Cole et al., 2005). The explicit objective of the human resource policies in modern workplaces has been to find the effect of better QWL on the employee, organisation and customers. Sirgy et al. (2001) emphasised that high QWL can nurture happy, flexible, loyal, motivated and productive employees. Research has shown that QWL has significant impact on employee behavioural responses, such as organizational identification (Efraty et al., 1991), job satisfaction (Saad et al., 2008), job involvement (Permarupan et al., 2013), job performance (Beh and Rose, 2007), intention to quit (Lee et al., 2013), employee well-being (Dolan et al., 2008) and reduced absenteeism (Stefano et al., 2014). Organisations that advocate for high QWL can gain leverage in attracting skilled employees and retaining the existing workforce (Lees and Kearns, 2005). Further, QWL can aid in solving the issues relating to talent management in organisations (Akdere, 2006). An increasing body of evidence also supports the positive effect of QWL on the organisation

like enhanced business performance (Ramstad, 2009), organisational efficiency (Singh and Srivastav, 2012), better service quality (Lau, 2000) and customer satisfaction (Lee et al., 2015).

Table 4.1: Definitions of QWL Derived by the Authors

Author and Year	*Definitions*
Walton (1975)	QWL is a process by which an organisation responds to employee's needs in developing mechanisms to allow them to share fully in making decisions that design their life at work.
Wood et al. (1975)	QWL is concerned with the relationship between individuals and features of their physical, social and economic work environment.
Glaser (1976)	QWL means more than job security, good working conditions, adequate and fair compensation, more even than an equal employment opportunity.
Greenberg and Glaser (1980)	QWL is a process by which an organisation attempts to unlock the creative potential of its people by involving them in decisions affecting their work lives.
Nadler and Lawler (1983)	QWL is a way of thinking about work, people, and organisation.
Davis (1983)	QWL is the quality of interactions between employees, work environment, economic factors and technology.
Straw and Heckscher (1984)	QWL is a philosophy, which holds that the people are the most important resource in the organisation as they are trustworthy, responsible and capable of making valuable contributions, and they should be treated with dignity and respect.
Trist (1985)	QWL is both an end and a means. It is an end in itself because it is a highly significant component in quality of life in general and it is a means by which employees can acquire civic competencies and skills.
Newstrom and Davis (1986)	QWL is the degree to which employees can meet and satisfy their personal needs through work.
Elizur and Shye (1990)	QWL is the degree of effectiveness of the functioning of an employee in the mode of behaviour (expressive, adaptive, integrative, and conservative) in the subsystem (psychological, physical, social, and cultural) of life areas (work, life in general).
Kiernan and Knutson (1990)	QWL is an individual's interpretation of his/her role in the workplace and the interaction of that role with expectations of others.
Baba and Jamal (1991)	QWL is a way of thinking about work, people, and organisation.
Kerce and Booth-Kewley (1993)	QWL is a matter of values and standards that are dependent largely upon one's cultural context.
Yousuf (1996)	QWL is a generic phrase that covers a person's feelings about every dimension of work.
Lau and May (1998)	QWL is defined as the favourable conditions and environments of a workplace that support and promote employee satisfaction by providing employees with rewards, job security, and growth opportunities.
Sirgy et al. (2001)	QWL is the employee's satisfaction with a variety of needs through resources, activities and outcomes stemming from participation in the workplace.
Krueger et al. (2002)	QWL is described as strength and weakness in the entire work environment.
Bediako (2002)	A high QWL environment is one in which people are essential members of an organisation that challenges the human spirit, promotes personal

	growth and development, and achieves results.
Morin and Morin (2004)	QWL is a multidimensional construct that refers to overall satisfaction with work life along with a cumulative sense of belonging to a working group and being worthy and respectable.
Brooks and Anderson (2005)	The quality of nursing work life is the degree to which registered nurses can satisfy important personal needs through their expectations in their work organisations while achieving the organisational goals.
Cole et al. (2005)	QWL encompasses an approach to industrial relations, a method of work re-design involving team decision making and a movement to enhance organisational effectiveness.
Hsu and Kernohan (2006)	QWL is a complex entity influenced by, and interacting with many aspects of work and personal life.
Martel and Dupuis (2006)	QWL corresponds to a condition experienced by the individual in his or dynamic pursuit of his /her hierarchically organised goals within work domains where the reduction of the gap separating the individual from these goals is reflected by a positive impact on the individual 's general quality of life, organisational performance, and consequently the overall functioning of society.
Argentero et al. (2007)	QWL is the result of the evaluation that an individual carries out by comparing his hopes, expectations and desires with what he considers as reality.
Van Laar et al. (2007)	QWL is the way in which work is good for the employee in the widest context in which he /she would evaluate the job.
Rethinam and Ismail (2008)	QWL is a wide-ranging concept, which includes the dimensions in the work organisation that enable an individual to develop and use all his/her capacities.
Gurses et al. (2009)	QWL is nurses' reaction to the outcomes of complex interaction between the components of work system.
Vagharseyyedin et al. (2011a)	Nurses QWL is a personal feeling or perception towards their work, organisation and employer.
Rantanen et al. (2011)	QWL comprises of favourableness of the total job environment.
Mosadeghrad et al. (2011)	QWL refers to employee satisfaction with working life.
Daubermann and Tonete (2012)	QWL encompasses the physical, technological, psychological and social dimension of work corresponding to the ideals of a more humane and healthy organisation.
Gayathiri et al. (2013)	QWL is the relationship between a worker and his environment in which work is viewed and designed.
Moradi et al. (2014)	QWL describes the methods by which organisation can ensure the holistic well-being of an employee instead of only focusing on work related aspect.
Cummings and Worley (2014)	QWL is a way of thinking about people, work and organisation involving a concern for employee well-being and organisational effectiveness.

4.1.2 Historical Development of QWL

The foundation of the QWL concept is based on the Human Relations theory propounded by Elton Mayo in 1933, which emphasised on humanising the work conditions of the employees. In the decade of 1960, European organisations realised the need to reorganise working conditions that focused on employee wellbeing. The expression 'quality of work

life' was coined by Irving Bluestone of General Motors to name an initiative, which allowed workers to participate actively in making decisions about their work condition. The concept further gained momentum in the International Conference on Quality of Work Life held in 1972 at Arden House, New York that emphasised on coordinating the efforts of researchers and organisations to build a strong theoretical corpus for QWL research. In the year 1973, the International Council for Quality of Working Life was created to promote research and the exchange of information concerning mental health at work. Seashore (1975) deplored the fact that the feeling of satisfaction or dissatisfaction can determine the level of QWL. He stated that job satisfaction is a cause and not a consequence of QWL and defined QWL as the 'effectiveness of work roles'. The 'effectiveness of work roles' is reflected in three aspects of the working world, employee (income, safety, intrinsic satisfaction), employer (productivity, cost, quality) and community. Lawler (1975) advised that the methods for measuring QWL must be valid, objective, and verifiable, have sufficient face validity, and must be able to distinguish individual differences in the same working environment. Walton (1975) proposed the primary determinants of QWL to be 'adequate and fair compensation', 'safe and healthy working condition', 'immediate opportunity to use and develop human capacities', 'social integration in the work organisation', 'constitutionalism', 'work and total life space', 'social relevance of work life', 'promotion and career planning'. Golembiewski et al. (1976) state that the dynamic construct of QWL is characterised by alpha, beta and gamma changes. Alpha changes depict the modification of a condition over time. Beta changes depict change in a condition over time along with a possible shift in the reference point. Gamma changes depict change in a condition over time, with a possible shift in reference point and a modification in person's perspective and priorities. Taylor (1978) advanced the model of QWL by identifying six dimensions that combine the criteria of individual and collective QWL. The factors were 'current issues', 'social work environment', 'growth and development', 'employers QWL' and 'society's QWL'.

Nadler and Lawler (1983) reviewed the evolution of the concept of QWL since its inception and stated that QWL was synonymous with a 'variable' that evaluated the individual's reaction to work or personal consequences of the work experiences during 1959 to 1972. The first QWL programs during 1969 to 1972 with the aim of labor-management collaboration for individual and organisational outcomes identified QWL as an 'approach'. At the same time, some non-unionized experiments like autonomous groups and job enrichment were introduced to change the workplace and its impact on the

worker, which branded QWL as a 'method'. In late 1970's there was a decline in the popularity of the concept and the efforts by some people to continue the momentum recognised QWL as a 'movement'. The early 1980's brought renewed interest in QWL, which labelled all the organisational initiatives as a part and parcel of QWL and equalled the concept with 'everything'. Nadler and Lawler (1983) conceptualised the distinctive elements of QWL to be the concern about the impact of work on people as well as on organisational effectiveness, and the participation of employees in problem-solving and decision-making. Levine et al. (1984) identified seven significant predictors of QWL in a specific setting by using Delphi technique. The predictors are 'supervisor's respect and confidence', 'variety in work', 'the challenge in work', 'future work opportunities', 'self-esteem', 'life outside work affect life at work' and 'work contributes to society'. Marks et al. (1986) measured the perception of QWL by using variables such as 'communication/participation (suggestions offered, participation in decision making, workgroup communication, organisational communication)', 'job characteristics (meaning, challenge, personal responsibility)', and 'growth needs (accomplishment, advancement)'. Elizur and Shye (1990) measured QWL on three basic facets; one facet specified 'mode of functioning' (expressive, adaptive, integrative, conservative), second specified the 'field of functioning' (psychological, physical, social, cultural) and the third specified the 'life areas' (work, life in general).

Loscocco and Roschelle (1991) emphasised on two major theoretical approaches in assessing QWL; one was based on the premise that job satisfaction and work commitment are the most important aspects of QWL, while the second stressed on the missing link between work and non-work life. Shani et al. (1992) concluded that QWL covers a broad spectrum of activities that may correspond to a specific set of theories, philosophies and school of thoughts, organisational design approach, problem-solving approach, quality improvement techniques, organisational development strategy or methods to improve organisational effectiveness and productivity. Gani and Ahmad (1995) proposed the correlates of QWL in Indian context as 'work environment', 'relational', 'job', and 'financial' factors'. Carayon (1997) examined QWL as the complex interaction among elements of the work system like 'individual task', 'organisational factors', 'environment', and 'tools and technology'. Lau and May (1998) evaluated the growth and profitability of two organisations which were rated as the best companies to work. The selection of companies was based on certain human resource practices, which forms the foundation of QWL. The HR practices taken into account were 'pay and

benefits', 'opportunities', 'job security', 'pride in work and company', 'openness and fairness', 'camaraderie and friendliness'. The results indicated that companies rewarding the employees with better QWL would reap higher growth and profitability. Venkatachalam and Velayudan (1999) assessed QWL in Indian steel plant using dimensions like 'QWL values', 'work complexity', 'autonomy', 'personal growth opportunity', 'top management support', 'worker's control', 'concern for organisational performance', 'QWL feelings' and 'quality of social life'. Sirgy et al. (2001) conceptualised QWL as need satisfaction from work experience resulting in job satisfaction and satisfaction in other life domains. The categories of need were 'health and safety needs (protection from ill health and injury at work and outside work, enhancement of good health)', 'economic and family needs (pay, job security, other family needs)', 'social needs (collegiality at work, leisure time off work)', 'esteem needs (recognition and appreciation of work within the organization and outside the organization)', 'actualization needs (realization of one's potential within the organization and as a professional)', 'knowledge needs (learning to enhance job skills and professional skills)' and 'aesthetic needs (creativity at work and personal life)'. Serey (2006) opined QWL as a construct that includes the criteria of 'concern', 'consciousness', 'capacity' and 'commitment'. Martel and Dupius (2006) proposed the quality of work life systematic inventory (QWLSI) which is subjective, integrates the organisational, individual and social aspects, as well as includes relationship of QWL with the quality of life. Kandasamy and Ancheri (2009) evaluated QWL using 'job characteristic', 'person-job fit', 'company image', 'HR policies', 'work group relationship', 'physical work conditions', 'work-life balance' and 'interaction with customers'. The above analysis of QWL literature convincingly argues about the multidimensionality of the concept. Further, the approach and methodology of most of the studies revolve around the broad definition of QWL. The attributes and constructs used to assess QWL are also diverse presenting a unique challenge for adaptability in the context of health care. The next section outline the studies on QWL conducted in health care settings.

4.2 Health Care Sector and QWL

Health care organisations are highly labour intensive, so they spend substantial effort and resources towards attraction and retention of the diverse and skilled workforce. Employees in such organisations spend a sizable portion of their lives interacting with

different facets of the workplace, which are physically and mentally strenuous. Thus, it is of utmost importance for the organisations to design a unique work environment that endows employees with exultant working lives. Poor QWL often leads to diminished performance, quality of care (Grunfeld et al., 2005) and high turnover (Hayes et al., 2006). Moreover, organisations need to distinguish and implement suitable human resource interventions at workplaces for improvement of the quality of life and work-life aspects of health care employees.

A structured review was carried out by a comprehensive search of electronic database like PubMed, ScienceDirect, Sage, Wiley, PsyINFO, ProQuest, JSTOR, etc. to gather the foundation of extant literature on QWL in a health care setting. The literature survey covered all research works during the period 1990 to 2016. The studies surveyed maps the overall evolution of QWL in a health care setting till date. An effort has been made to collect the major publications that have contributed toward the development of QWL in a health care setting. The seminal works on QWL of health care employees has been conducted by Attridge and Callahan (1990), Brooks (2001), Hsu and Kernohan (2006), Van Laar et al. (2007), Webster et al. (2009), Vagharseyyedin et al. (2011b), Mosadeghrad et al. (2011), Almaki et al. (2012), Lee et al. (2013), Opollo et al. (2014), and Nowrouzi et al. (2015).

Attridge and Callahan (1990) prioritised the elements of a quality nurses' work environment using nominal group techniques. The researchers focused on six dimensions of QWL, namely 'organisation characteristics', 'human and other resources', 'nature of nursing work', 'work related benefits', 'collegial relationships', 'self and career development', and 'acknowledgement of value'. Brooks (2001) developed a scale to measure nurses' QWL by adapting the framework of O'Brien-Pallas et al. (1994). The framework consists of 'work life/home life (life experiences at the place of work and in the home)', 'work design (composition of work)', 'work context (practice setting and work environment)', and 'work world (societal influence and changes in nursing practice)' dimensions. Hsu and Kernohan (2006) described the QWL of nurses in Taiwan using focus group discussions. The items were clustered under six factors including 'socio-economic relevance', 'demography', 'organisational aspects', 'human relation aspects', and 'self-actualization'. Van Laar et al. (2007) stressed on both work and non-work context to assess QWL and developed the work-related quality of life (WRQoL) scale for health care employees, which consists of six dimensions, namely 'job and career satisfaction', 'general well-being', 'home-work interface', 'stress at work', 'control at

work', and 'working conditions'. Webster et al. (2009) conducted in-depth interview and face-to-face interviews with nurses who have resigned from the hospital to develop a practice environment based on their work-life experiences. The researchers used content analysis and constant comparative method to derive two domains ('work life' and 'personal/professional life') and five themes ('feeling safe/unsafe', 'feeling valued/not valued', 'getting things done', 'opportunities/no opportunities for professional development', and 'being flexible') of work life. Vagharseyyedin et al. (2011b) found six predictors of nurses' QWL by conducting a systematic review. The predictors were 'leadership and management styles/ decision-making latitude', 'shift work', 'salary and fringe benefits', 'relationships with colleagues', 'demographic characteristics', and 'workload/job strain'.

Mosadeghrad et al. (2011) explored the QWL of hospital employees with a questionnaire developed by extensive literature review and Delphi technique. The items of the questionnaires were grouped into nine constructs namely, 'participation and involvement', 'job promotion', 'disturbance handling', 'communication', 'the motivation for work', 'job security', 'wages and salaries', 'job proud' and 'job stress'. The study found low QWL among the hospital employees. Almaki et al. (2012) investigated the QWL of primary care nurses by conducting a cross-sectional survey using the Brooks (2001) QNWL scale. The study revealed the dissatisfaction of nurses with their QWL and the effect of demographic factors on nurses QWL. Lee et al. (2013) assessed the QWL of nurses in an acute care setting using the Chinese version of Quality of Nursing Work Life Scale (C-QNWL) adapted from Brooks (2001). The C-QNWL consists of ten subscales namely 'job security and professional recognition', 'work arrangement and workload', 'work and home life balance', 'supervisor's management style', 'teamwork and communication', 'nursing staffing and patient care', and 'respect and autonomy'. The study found a moderate level of QWL among the nurses and associated QWL with turnover intention. Opollo et al. (2014) described the perceived work-related quality of work life of health care workers in Uganda by adapting Van Laar et al. (2007) WRQoL scale. The participants reported low QWL while gender and number of hours worked significantly influenced QWL. Nowrouzi et al. (2015) used mixed method approach using questionnaires and semi-structured interviews to examine the QWL of nurses. The study highlighted on the significance of instituting a high QWL for nurses' health. The above studies on QWL in health care context have explicitly explored the concept. They also present a different approach, methodology, attributes and constructs to measure QWL.

Nevertheless, all these works have been conducted in foreign countries. Research in India regarding QWL in a health care setting is scarce. This study attempts to cover the gap by presenting a holistic research model that envelops the antecedents and outcome of QWL as well as assess QWL in Indian health care context.

4.3 Overview of Antecedents and Outcomes of QWL

The QWL literature emphasises on numerous instances that relate to making the job better and exploring balanced ways of fulfilling the work and personal needs of the employees. The employees spend a significant portion of their lives in the workplace. Therefore, organisations can redesign different aspects of the job to enable employees to utilise their potential and experience better QWL. Further, organisations can also focus on human resource interventions to fill up the prevalent gap between reality and expectation of the employees to augment their QWL. The review of the extant literature has revealed several antecedents and outcome of QWL that have been summarised below (table 4.2). These factors have been grouped into job dimensions and human resource (HR) interventions as the antecedents of QWL and employee commitment and turnover intention as the outcome of QWL for the current study. The job dimensions include the physical work environment, occupational stress, career growth and development, job characteristics, compensation and rewards, and social support. These variables have been categorised under job dimensions because they are present in the job context of the health care employees of Odisha and are essential in describing their perceived QWL. The human resource interventions include job security, employee welfare, grievance management, teamwork and communication, empowerment and involvement, and work-life balance. These variables have been categorised under HR interventions because they are scarcely present in the current context of the health care employees of Odisha and should be adapted by the organisation to improve their perceived QWL. Further, this research presents a theoretical model that can be used as a framework to enhance the QWL of employees. It also comprises of employee commitment and turnover intention as the result of better QWL of the employees as reflected in the hypothesised research model (figure 4.1). The antecedents and outcomes of QWL are illustrated in following sections.

Table 4.2: Antecedents and Outcomes of QWL

		Factors	*Authors and Year*
ANTECEDENTS	**JOB DIMENSIONS**	Physical Work Environment	Lee and Harrison (2000), Hayhurst et al. (2005), Sirgy et al. (2008), Schmalenberg and Kramer (2008), Gurses et al. (2009), Mahmood et al. (2011), Ashkanasy et al. (2014), Nowrouzi et al. (2015)
		Occupational Stress	Ahmad and Mehta (1997), Hart and Cooper (2001), Van Laar et al. (2007), Dolan et al. (2008), Mosadeghrad et al. (2011), Ahmad (2013)
		Career Growth and Development	Wyatt and Wah (2001), Lewis et al. (2001), Donaldson and Bligh (2006), Sirgy et al. (2006), Gesme et al. (2010), Parsa et al. (2014)
		Job Characteristics	Serey (2006), Kandasamy and Ancheri (2009), Lai et al. (2012), Sojka (2014), Gupta and Hyde (2013), Zakerian et al. (2014), Birtch et al. (2016)
		Compensation and Rewards	Saraji and Dargahi (2006), Rose et al. (2006), Pratheepkanth (2011), Sharma and Jyoti (2013), Bustamam et al. (2014), Lee et al. (2015)
		Social Support	Gifford et al. (2002), Connell and Hannif (2009), Vagharseyyedin et al. (2011b), Md-Sidin et al. (2010), Gillet et al. (2013), Ganesh and Ganesh (2014), Converso et al. (2015)
	HR INTERVENTIONS	Job Security	Hosseinabadi et al. (2013), Lee et al. (2013), Moradi et al. (2014), Borhani et al. (2016)
		Employee Welfare	Rao and Venugopal (2009), Lin et al. (2011), Kang and Deepak (2013), Hassan (2014), Singh et al. (2015), Bhattacharjee (2015)
		Grievance Management	Gerardi (2004), Joshi (2007), Saklani (2010), Gayathiri et al. (2013), Moghimi et al. (2013)
		Teamwork and Communication	Lewis et al. (2001), Wheelan et al. (2003), Vagharseyyedin et al. (2011b), Yeo and Li (2011), Rai (2013), Brunault et al. (2014), Howe (2014)
		Empowerment and Involvement	Manojlovich (2005), Manojlovich and Laschinger (2007), Laschinger (2008), Caspar and O'Rourke (2011), Coburn and Hall (2014), Sheikhepoor and Sheikhepoor (2015)
		Work-Life Balance	Greenhaus and Powell (2006), Beham and Drobnic (2010), Díaz-Chao et al. (2014), Sullivan (2014), Harris et al. (2015), Bophela and Govender (2015), Mehdizadeh (2016)
OUTCOMES		Employee Commitment	Huang et al. (2007), Lee et al. (2007), Steyrer et al. (2008), Vanaki and Vagharseyyedin (2009), Normala (2010), Koonmee et al. (2010), Tamini et al. (2011), Farjad and Varnous (2013), Zhao et al. (2013), Farid et al. (2015), Almarshad (2015), Eren and Hisar (2016)
		Turnover Intention	Wagner (2007), Korunka et al. (2008), Joo and Park (2010), Celik and Oz (2011), Almaki et al. (2012), Lee et al. (2013), Surienty et al. (2014), Lee et al. (2015)

4.3.1 Job Dimensions

The job dimensions are the fundamental elements associated with an occupation that has continuous interaction with the employee. These elements can be judiciously adjusted to produce a strong impact on the QWL of employees. The pivotal role of the job dimensions such as physical work environment, occupational stress, career growth and development,

job characteristics, compensation and rewards, and social support in enhancing QWL of employees has been recognised in health care literature. The individual relationships among the variables of job dimensions and QWL are reflected in the subsequent review. However, the cumulative effect of all job dimensions engaged in this research has not been evidenced in previous works. Thus, the following hypothesis is proposed:

H_1: Proper emphasis on various job dimensions of the health care organisations will have a significant impact on the perceived quality of work life of employees.

Physical Work Environment

Physical work environment is defined as the facilities, equipment, resources and operational climate that employees' encounter and interact at their workplace. A healthy work environment provides the physical, cultural and psychological working conditions that can maximise the health and well-being of employees (Grimes and Robert, 2010), improve the quality of care and optimise organisational performance (Jennings, 2008). According to the Canadian Health Service Research Foundation, the factors that affect the work environment of workers are high workload, insufficient staffing, physical environment, inputs in decision-making, and organisational communications. Aiken et al. (2002) found that low staffing patterns and poor perception of the work environment were significantly related to poor quality of care. The elements of the work environment have an impact on the emotional health and relationship dimension (involvement, peer cohesion and supervisor support) of health care workers (Chan and Huak, 2004). Lee and Harrison (2000) suggest taking the opinions of employees regarding their satisfaction with work environment to measure their perceived QWL. Better work environment aids in enhanced motivation, productivity and performance of individuals as well as organisations, and provides support for best practices in quality patient care. Supportive work environment enables nurses to provide quality patient care, enhances their self-esteem and increases job satisfaction (Hayhurst et al., 2005). Physical work environment features is a critical variable that is capable of influencing the process, attitude and behaviours, and ultimately leads to employee performance and well-being (Ashkanasy et al., 2014). Mahmood et al. (2011) identified several environmental elements in hospitals like 'storage space', 'nursing station layout', 'noise and poor lighting' that led to medication errors, stress and fatigue. Jaskiewicz and Tulenko (2012) proposed the importance of work environment factors such as 'manageable workload', 'organised tasks', 'availability of supplies and

equipment', and 'respect and acceptance by health systems' as important determinants of health workers' productivity and effectiveness in developing countries. Several studies indicate a significant and positive relationship between the healthy work environment and quality of work life (Sirgy et al., 2001). Schmalenberg and Kramer (2008) found that the lack of healthy and safe work environment could lead to poor QWL of employees. The poor work environment can also act as a performance obstacle by increasing the workload of health care employees and negatively affect their QWL (Gurses et al., 2009). Sirgy et al. (2008) proposed QWL programs such as decentralised organisational structure, teamwork, parallel structures and quality circles along with ethical corporate culture for improving the work environment. Further, Hsu and Kernohan (2006) suggested that assessing the strengths and weakness of the work environment could be helpful in designing strategies to improve the QWL of health care employees. Nowrouzi et al. (2015) conducted a qualitative study among rural nurses and captured the subtheme that emphasised on improvements in facilities and equipment of the unit to improve QWL. Ayamolowo et al. (2013) examined the nurses in a primary health care setting and concluded that healthy work environment could improve work satisfaction. Thus, it is of paramount importance for organisations to foster better work environment to ensure employee's wellbeing, improve QWL and guarantee patient safety (Lowe, 2007). Health care units must adopt optimal methods to design physical work environments supported by culture and workflow to be able to respond to the changing needs of the stakeholders (Clancy et al., 2007). Therefore, based on the above argumentation, it is hypothesised that:

H_{1a}: *Physical work environment is a significant predictor of quality of work life.*

Occupational Stress

Occupational stress refers to a negative psychological state that arises from the interaction of employees and their work environment that they perceive to be exceeding their capability and resources, thus disturbing their mental and physical well-being. The primary focus of occupational stress studies has been on the relationship between stressors, strain and coping mechanisms. Stressors are the environmental conditions that elicit an emotional response; strain is the individual response to stressors; and coping is the individual effort to minimise stress (Mazzola et al., 2011). The underlying sources of stress among health care employees are insufficient time and resources to complete tasks, coping with changing responsibilities, conflicting work-family demands, lack of

involvement in planning and decision-making, inadequate pay, staff shortage, and being involved in the emotional distress of patients (Tyson et al., 2002; Saha et al., 2011). Johnson et al. (2005) studied work-related stress across occupation and focused on 'intrinsic job-related factors', 'role in the organisation', 'career development', 'relationships at work', and 'organisational culture and climate' as sources of stress. The research identified that the amount of stress experienced by a person depends on the type of work, presence of work stressors, the amount of support received at work and home and the coping mechanisms to deal with stress. The perceived stress among nurses in a hospital differs according to the work area, and provisions to address work demands can reduce stress (McCarthy et al., 2010). The health care employees are trained to deal with physically and mentally challenging workplace activities, but stress takes a toll when there are additional stresses like lack of family support, conflict at work, poor teamwork, lack of training, and poor supervision (Kane, 2009). Stress is known to cause emotional turbulence, thus affecting employee's health, attrition rate, injury, infection rates and distort them from giving holistic care to patients (Serey, 2006). A study among Malaysian and Nigerian health service providers reported radiographers were affected the most by psychological and work-related biomechanical stress followed by nurses and medical laboratory technologists (Lua and Imilia, 2011; Ugwu et al., 2007). A high level of occupational stress results in negative physical, psychological, interpersonal and organisational consequences, thus posing a threat to QWL and quality of health care services (Mosadeghrad et al., 2011). Ahmad and Mehta (1997) provided empirical evidence that the dimensions of organisational stress namely 'inter-role distance', 'role stagnation', 'role expectation conflict', 'role erosion', 'role overload', 'role isolation', and 'role inadequacy' were negatively correlated with the perceived QWL. Hart and Cooper (2001) identified that adverse work experiences are the causes of occupational stress, which contribute to poor QWL. Further, Van Laar et al. (2007) proposed 'stress at work' as a dimension for measuring QWL in health care organisations. The findings of studies also confirm that the nurses with high QWL tend to have lower job stress, and poor QWL can lead to stressful working conditions as well as negative outcomes (Dolan et al., 2008). The stress among health care workers can be decreased by employee participation, supervisor support, decreased overload, conflict, ambiguity, and psychological intervention to cope with stress (Rahmani et al., 2008). Thus, employers should adopt stress-reduction strategies to prevent occupational stress among employees and improve their QWL (Ahmad, 2013). A supportive social environment that includes co-workers and

supervisors, peer and team cohesion, autonomy, utilisation of skills, rewards and emphasises on planning and efficiency can reduce the negative impact of environmental stressors (Lundstrom, 2002). The QWL of health care employees is mostly influenced by social stressors, which can be alleviated through participative management, and internal training (Pronost et al., 2012). Health care organisations should promote tailored interventions with individualised approach such as stress reduction program, coping strategies and personalised counselling to improve the job satisfaction and well-being of workers (Fiabane et al., 2013). Alternatively, Woodhead et al. (2016) emphasised on person-directed interventions that focus on coping techniques and organisation directed interventions that focus on decreasing job demands to be effective in the long term to manage occupational stress. Thus, the following proposition is considered:

H_{1b}: Occupational stress has an inverse relationship with the quality of work life.

Career Growth and Development

Career growth and development can be defined as the range of work roles or opportunities available to an employee in the organisation to develop a particular set of skills, knowledge, qualifications, experience, etc. The development of innovative tools, techniques and procedures in hospitals requires the health care employees to maintain clinical competence through continuing education and training (Ross et al., 2013). The career of health care employees can be divided into stages like exploration, establishment, maintenance and disengagement (Chang et al., 2007). Training is said to be a relatively permanent change in attitude, skills, knowledge and behaviour through a formal orientation programme, cross-functional training, coaching, professional and personal development. In return, it promotes employee retention, staff morale, practice efficiency, job competency and QWL (Farjad and Varnous, 2013; Gesme et al., 2010). The health care worker's indulgence in professional development can enable them to update knowledge and skills, enhance recognition, career progression, salary enhancement, and improve job satisfaction (Murphy et al., 2006). Srivastava et al. (2010) indicated the broad usage of employee assistance programs, career counselling, learning avenues, skill enhancement and behavioural training to help the employees utilise their abilities and competencies for optimum performance. Health care organisations should encourage on the job training activities where learning occurs through social interaction, joint reflection and individual reflection so that employees can be able to transfer their learning to work

situation (Berings et al., 2008). Further, Rose et al. (2006) reported the significant effect of career satisfaction, career achievement and career balance on QWL of employees. Knox and Irving (1997) suggest providing distinct career paths for employees to promote QWL. Favourable career opportunities may act as change agents to promote employee mental well-being. Workplaces that foster high QWL must have fair career opportunities that enable employees to achieve career goals (Wyatt and Wah, 2001). Chang et al. (2007) advised that the gap between career needs and growth and the poor quality of mentorship can create job dissatisfaction. Hsu and Kernohan (2006) proposed a nurses clinical ladder and specialist system to aid in the professional development of the nurses. Sirgy et al. (2006) included the development of personal capabilities as a part of self-actualization dimension that can influence QWL. Lewis et al. (2001) emphasised on training and development of employees as an intrinsic determinant of their QWL. Organisations should try to design programmes for each career stage for deriving commitment, retention and reciprocity from employees. Mentoring relationships should also be encouraged to assist employees in formulating feasible career goals in the short term and long-term increments to get personal satisfaction and self-confidence from successful accomplishments of goals (Bakken et al., 2006). Health care managers should understand that employees of different age groups have different professional development needs. A younger worker may require support to undertake training programmes while a middle-aged worker may require new and challenging tasks and further an older worker may need assistance in finding the programs that match their experience level (Pool et al. 2015). Thus, the organisational learning interventions should be designed by being attentive to the emerging technologies, cultural context, and socio-technical systems, as well as suit the expectations and requirements of the generational workforce (Palo and Dokadia, 2015). Lee and Bruvold (2003) concluded that the commitment of an organisation to invest in development could improve health care worker's morale and dedication to the level that emotionally binds them to the organisation and encourages them to stay on. Srimannarayana (2008) suggested that a healthy HRD climate can reinforce the overall internal environment of the organisation, promote employee commitment, involvement and satisfaction with the job. Furthermore, a valued and motivating culture of professional development must be created along with infrastructure and partnership between individual and employees to foster lifelong learning (Copper, 2009). So, the organisations should explore intellectually challenging, personally rewarding career and growth prospects for better QWL of health care employees (Donaldson and Bligh, 2006; Parsa et al., 2014). Further, employers

should focus on career management of employees to enhance the loyalty of workforce and reduce turnover of valued employees (Cooke, 1994). Hence, the following premise is expected:

H_{1c}: *Opportunities for career growth and development is the significant predictor of quality of work life.*

Job Characteristics

Job characteristics can be defined as the specific aspects of the job that can be recognised, assessed and which influences employee behaviour. The 'job demand support control' (JDCS) model (Karasek and Theorell, 1990) is widely used to study job characteristics in health care settings. The model posits that three crucial dimensions predict employee well-being, which are 'job demands', 'job control' (skill discretion, decision authority) and 'social support from supervisor and colleagues' (Pisanti et al., 2011). The job characteristics model (Hackman and Oldham, 1980) depicts that job is motivating when it provides greater 'task identity (completing a whole piece of work from beginning to end)', 'skill variety (the chance to use diverse skills on different task)', 'task significance (substantial impact of work outcomes on others)', 'autonomy (discretion in decision making, work methods and work scheduling)', and 'feedback (information regarding performance)' (Barrick et al., 2013). The critical psychological states that emerge from characteristics of a job are responsibility, meaningfulness, knowledge of results, which can lead to increased work motivation, satisfaction and performance (Garg and Rastogi, 2006). Morgeson and Humphrey (2006) assessed the nature of work across occupation using 'task (autonomy, variety, significance, identity, feedback)', 'knowledge (job complexity, information processing, problem solving, skill variety, specialisation)', 'social (social support, interdependence, interaction outside organisation, feedback from others)' and 'contextual (ergonomics, physical demands, work condition, equipment use)' characteristics. According to Bakker and Demerouti (2014), the job characteristics can also be divided into job demands (aspects of the job that requires sustained effort and is associated with cost) and job resources (aspects of job that are functional in achieving work goals). The job demands are closely associated with exhaustion, and lack of job resources is associated with work disengagement among health care employees (Peterson et al., 2008). Thus, providing health care employees with job resources that match the job demands can make work, stimulating and challenging (De Jonge et al., 2008). The

challenging job can further aid the employees to develop a positive and realistic self-worth, continuously innovate, and take risks. Researchers have put forward that self-growth, motivating and challenging work may lead to satisfied employees (Liou et al., 1997) and increase the degree of QWL (Kandasamy and Ancheri, 2009). When the employees are allowed to take on challenging tasks and greater responsibility, it enhances their QWL through the realisation of one's potential as a professional (Sirgy et al., 2001). Serey (2006) proposed that QWL is linked with meaningful and satisfying work, that utilises the employee's skills and capacities, enables to confront challenges and requires self-initiative and self-direction. Further, the task variety and nature of job are important aspects that influence the QWL of employees (Singh and Srivastav, 2012; Gupta and Hyde, 2013). Sojka (2014) considered the content of work as a dimension of QWL, which is primary (directly connected to the workplace), deliberately designed, facultative (discretionary to the employer) and hard to influence easily. Scott et al. (2015) conducted discrete choice experiment among nurses and midwives in Australia who rated autonomy and working hours as highly valued job characteristics in health care setting. Lai et al. (2012) suggest that the effect of work variables like workload, autonomy, skill variety on QWL varies with generations. Higher job demands and resources can be suitable for Gen X employees but not for Gen Y or baby boomers. De Jonge et al. (2010) suggest modifying the job characteristics such as emotional and mental demands as well as decision authority through job redesign to enhance the well-being of health care employees. Job context must be a priority for health care managers as job meaningfulness and nature of job are important motivators for employees (Gaki et al., 2013). The job characteristics of skill variety and task significance have the highest effect on QWL of employees (Zakerian et al., 2014). In health care context, employees should be provided with adequate resources and job autonomy to fulfil wide spectrum of job demands and improve their QWL (Birtch et al., 2016; Kochar, 2015). The QWL initiatives to improve the job characteristics should comprise of providing the employees with opportunities to face challenges and situations that require independent initiatives and self-directions. So, the following hypothesis is suggested:

H_{1d}: *Job characteristics will exhibit an impact on quality of work life.*

Compensation and Rewards

Compensation encompasses all forms of tangible and intangible remuneration received by employees (Merriman, 2014), while reward represents whatsoever that an employee may value and that an employer is willing to offer in exchange for his contributions (Chiang and Birtch, 2008). Compensation is a driver of employee attitudes and behaviours (Sweins and Kalmi, 2008) and is vital for appreciating employee worth, attracting potential job incumbents, and retaining existing employees (Gerhart and Rynes, 2003) along with the increasing the motivation and performance level of the workforce (Dineen and Williamson, 2012). Fair compensation is a relative term that depends on employee perception of fairness and is consistent with the business strategy, value, job design, responsibility and position. It acknowledges the difference in skills, responsibility, contribution, and encourages frequent promotion. Compensation strongly influences continued organisational membership and reciprocity towards the organisation (Dulebohn and Werling, 2007). Rewards received by health care employees comprise of monetary incentives, development opportunities, recognition, respect within a hierarchical system, and enhanced public image of the profession (Hasselhorn et al., 2004; Van Vegchel et al., 2005). Rewards should reflect a person's effort and competence and be allocated with fairness and objectivity (Yukl, 1998). De Gieter et al. (2006) categorised rewards into financial, non-financial and psychological as well as suggested organisations to strike a balance between the three rewards categories for creating an optimal reward solution for health care employees. Employees perceive financial and non-financial rewards differently. Financial rewards often imply control and micromanagement over employees and display fairness when it is performance based. Non-financial rewards, on the other hand, signal appreciation and enhance feelings of self-actualization and interest in the job (Markova and Ford, 2011). Williams et al. (2008) proposed two dimensions to measure the compensation satisfaction among employees, pay (satisfaction with pay level, structure and raise) and benefits (satisfaction with benefit level, determination and administration). Employers must emphasise on pay to attract employees and focus on expectancies and equity of benefits to retain employees (Carraher, 2011). Furthermore, the compensation and reward strategy of the organisation conveys an important message regarding the organisational culture, values and practices (Kuhn, 2009). Researchers have also found a significant relationship between compensation, rewards, and QWL (Saraji and Dargahi, 2006; Sharma and Jyoti, 2013). Recognising and rewarding employees and considering them as associates increase QWL (Rose et al., 2006). Lee et al. (2015)

investigated the relationship between QWL and job satisfaction and attributed fair pay as a 'frustrator' and good rewards system as a 'hybrid'. Frustrator is an attribute that creates dissatisfaction when unfulfilled but does not create satisfaction when fulfilled. Similarly, hybrid is an attribute that creates satisfaction when fulfilled and dissatisfaction when unfulfilled. Employees who are content with their compensation can derive higher job satisfaction, and who are rewarded may exude higher self-esteem, confidence, and willingness to face new challenges (Pratheepkanth, 2011). Employees may also feel obliged by receiving rewards and recognition from their organisation and respond with higher levels of commitment (Misra et al., 2013). Furthermore, lack of rewards can create an unpleasant work environment, diminish employees' work efforts, affect QWL and may cause them to withdraw from their jobs (Bustamam et al., 2014). Adequate salary and benefits are a part of the relational psychological contract that can make the employee feel obligated to go beyond the explicit requirement of the job role (Aggarwal and Bhargava, 2011). Organisations may use performance appraisals to assess the performance of employees and link these appraisals tightly with incentive compensation systems and merit-based internal promotion systems to align the interests of employees with the organisational objectives (Singh et al., 2013). The HR policies and procedure cannot exude desired effects on the employees unless they are satisfied with the compensation and rewards system. In health care organisations, the power of such a system can be utilised to harness improved safety, quality, creativity and QWL (Gupta and Shaw, 2014). Based on the above argumentation, it can be proposed that:

H_{1e}: *Compensation and reward system will influence the quality of work life of employees.*

Social Support

Social support refers to the employee's perception regarding the quality and strength of relationships at the workplace, which provide resources such as communication of information, emotional empathy and tangible assistance. Kossek et al. (2011) conceptualised social support as stemming from multiple sources (supervisors, co-workers, family) and differentiated by content as general (support received on the job by social interaction or resources) or specific (support through the provision of resource to reinforce a particular role demand). The relatively frequent interaction between the employee and supervisor at work makes the supervisor a potential shaper of the

employee's support perception (Maertz et al., 2007). Allen (2001) defined a family supportive supervisor as one who is sympathetic to the employee's desires to seek a balance between work and family and who engages in efforts to help accommodate the employee's work and family responsibilities. The extent to which supervisors provide encouragement and support to employees within their work groups is a strong determinant of job satisfaction and can reinforce the employee's positive self-image (Lapierre and Allen, 2006). The presence of an encouraging and accommodating supervisory and managerial culture can promote a good relationship with co-workers, which is an important determinant of QWL (Connell and Hannif, 2009). The co-workers take the role of the pseudo agents of the organisation and provide emotional support, such as the action of caring or listening sympathetically and tangible assistance such as help with a work-related problem (Sumathi et al., 2015; Jenkins and Elliot, 2004). The Royal College of Nursing (2005) views that positive interactions and support from colleagues are associated with a reduction in emotional exhaustion, burnout, psychosomatic symptoms and sickness absence. It can also promote well-being by meeting the essential human needs of security, social contact, approval, belonging and affection. Furthermore, the good collegiate relationship is a dominant factor that determines the job satisfaction of health care employees (Lu et al., 2012). Favourable behaviour and support from the supervisor can significantly improve the nurses' QWL (Vagharseyyedin et al., 2011b). Further, the supervisor in a health care setting must be a transformational leader as it promotes organisational justice and enhances QWL of employees (Gillet et al., 2013). Supervisors should also engage in mentoring programmes to provide greater support regarding showing concern for staff's need and feelings, providing helpful information and constructive feedback to the employees (Othman and Nasurdin, 2013). Gifford et al. (2002) focused on high levels of trust, morale and low conflict in interpersonal relations for having a positive impact on employee's QWL. Positive interactions and support in the workplace can alleviate depression and stress, provide solutions for work problems and lead to increased quality of work life (Piko, 2003; Dolan et al., 2008). Converso et al. (2015) emphasised that support and gratitude received from patients can improve 'affective crossover' between staffs and patients as well as lead to better QWL. Ganesh and Ganesh (2014) concluded that supervisory support is the most critical source of support, followed by co-workers support and family support, which significantly enhances the QWL of employees. Further, social support from supervisor and spouse, functions as a health sustaining support and has beneficial effects on improving the quality of life (Md-

Sidin et al., 2010). Employees who have supportive relationships both inside and outside of work domain tend to be more satisfied with different aspects of their life than those who are relatively isolated (Ferguson et al., 2012). Thus, health care organisations need to create and maintain supportive work culture to nurture a satisfied workforce. The above discussions provide ample facts to suggest that:

H_{1f}: *Perceived degree of social support has a significant association with quality of work life.*

4.3.2 Human Resource Interventions

An intervention is one or a series of planned change activities that is aimed to help enhance the effectiveness of an organisation (Cummings and Worley, 2014). Thus, the HR interventions are the policies and practices crafted by the organisation to cater to the changing needs and demands of the employee. These interventions can be embedded in the workplace to create a robust influence on the QWL of employees. The crucial impact of the HR interventions such as job security, employee welfare, grievance management, teamwork and communication, empowerment and involvement, work-life balance on better QWL of employees has been acknowledged in health care settings. The individual associations among the variables of HR interventions and QWL are reflected in the subsequent review. However, the cumulative effect of all HR interventions engaged in this research has not been proven in earlier research. Thus, the following hypothesis is proposed:

H_2: Human resource interventions have a significant impact on the perceived quality of work life of the health care employees.

Job Security

Job security is defined as the employee's perception at the job level about job stability or permanence (Sverke et al., 2002; Probst, 2005). It is a psychosocial motivator as well as a sentinel indicator of employment conditions and the way work is organised. It is also considered as an extrinsic job feature that determines the quality of job (Dieckhoff, 2011). Gallie et al. (2016) captured two form of job insecurity, job tenure insecurity (anxiety about the loss of employment) and job status insecurity (threat of loss of valued features

of the job). The current labour market is characterised by several facets such as temporary employment, job instability, downsizing, restructuring and outsourcing (Landsbergis et al., 2012). Employees in private health care units commonly are in temporary jobs and face job insecurity, which is characterised by a lack of control over future work, income opportunities, and fewer rights (Benach and Muntaner, 2007; Richardson, 2008). The threats to job security are associated with negative work outcomes, poor satisfaction, low level of psychological wellbeing and negative staff's perception of hospital functioning (Burke et al., 2015). The lack of job security among employees has been associated with physical and psychological health (Ferrie et al., 2005; Virtanen et al., 2005). Job insecurity is a stressor for the worker that often leads to strain due to poor control over work and life (De Witte, 2005; Vander Elst et al., 2014). Alternatively, a small degree of job insecurity may act as a challenge stressor and motivate employees to improve performance because high performance is perceived as a safeguard against being laid off (Staufenbiel and Konig, 2010). Research has also established the relationship of job insecurity with the job and organisational withdrawal, lower use of work-non-work support programs and work-non-work boundary permeance (Dekker and Schaufeli, 1995; Boswell et al., 2014). Further, health care employees also show higher turnover intention and develop a negative attitude, when they experience high levels of job insecurity (Mauno et al., 2005). Job security is a basic rudimentary expectation of health care employees as well as a part of their psychological contract (Hyde et al., 2009). It is the most preferred factor of motivation among health care employees in India (Purohit and Bandyopadhyay, 2014). It also has a positive effect on the QWL of health care employees (Hosseinabadi et al., 2013; Lee et al., 2013). Borhani et al. (2016) examined job security as a subset of global work dimension, which has a significant relationship with QWL. Moradi et al., (2014) reported that nurses with greater job stability through permanent employment perceived better QWL than those with temporary or contract employment. Furthermore, a study conducted on pharmacists revealed that men with better-paying job perceive more job security and women experienced a greater level of job security than men (Carvajal et al., 2012) did. In the current context, the volatility of labour market amidst restructuring and downsizing has placed job security beyond the control of the management. However, organisations can reduce the effects of job insecurity among health care workers by making them feel important, caring about them, valuing their opinion (Laine et al., 2009) and engaging in good faith to secure their jobs (Preuss and Lautsch, 2002). Organisations can also foster a work environment of fewer ambiguities

and conflicts, supported through open communication to improve employee perception of job security (Keim et al., 2014). Griep et al. (2016) suggest organisational intervention to reduce perceived job insecurity by investing in communication, encouraging employee participation in decision making and improving perceived employability. Job security can act as a strong antidote for the dissatisfaction that health care workers might perceive in their job at private hospitals and increase their willingness to deliver better performance (Mahmoud and Reisel, 2014). So, the following hypothesis is suggested:

H_{2a}: *Feeling of secured jobs by the health care employees will determine the degree of quality of work life.*

Employee Welfare

Employee welfare refers to a set of policies and programs, which provides support to the employees and their families as well as enhance personal effectiveness and quality of life (Berry et al., 2010). Welfare benefits are often decided through interaction among the firm, regulatory authorities, employees, and society (Oliver and Cravens, 2001). Welfare plans are influenced by several factors like government regulations, the strategy of the organisation, business unit activity, industry type, general competitive and economic environment as well as cultural factors (Oliver and Cravens, 2001). Dencker et al. (2007) categorised employee welfare benefits into protection programs, paid time off policies, accommodation, and enhancement programs. Protection programs provide protection against income or health through pension schemes, family benefits, sickness benefits, health promotion, and safeguarding against unemployment or disability. Paid time off policies compensates employees when they are performing primary work duties such as vacation, holidays,etc. Accommodation and enhancement benefits promote opportunities for employees and their families through flexible work schedule, tuition fee reimbursement, maternity/parental leave, career breaks, etc. (White, 2005). In health care sector, providing employees with canteens, subsidised meals, medical facilities, education facilities for children, childcare or elderly care facilities, retirement benefits, recreational facilities, subsidised transport facilities, housing allowances, provision of loans, etc. are regarded as welfare benefits. They are extremely valuable for health care employees and their families to improve job satisfaction and quality of life (Artz, 2010; Teti and Andriotto, 2013). Welfare measures in health care sector should aim to create efficient, healthy and satisfied employees by improving the working and living conditions of

employees as well as their families (Patro, 2015). Further, health care employees should be united in thought, sympathy and purpose for improving their economic conditions as well as their welfare benefits (Thupayagale-Tshweneagae and Dithole, 2007). Employers can also generate greater trust from their employees when they exhibit commitment towards employee welfare (Caldwell et al., 2008). The implementations of employee welfare schemes are capable of attracting and retaining employees, turnover reduction, spawning cooperative behaviour, meeting employee's needs better, improving their morale as well as QWL (Lin et al., 2011; Hassan, 2014). Extant literature has identified welfare measures as an important aspect of employee QWL (Rao and Venugopal, 2009; Ghosh et al., 2009). Kang and Deepak (2013) assessed the QWL of veterinary doctors and found welfare benefits to be a positive and significant determinant of QWL. However, HRM professional in recent times have only retained a custodianship for employee welfare activities and have been emphasising on employer's goals rather than advocating for employee welfare (Van Buren et al., 2011). Therefore, organisations need to put more effort to formulate and implement effective HR practices on employee welfare to boost morale and ensure better QWL (Singh et al., 2015). Further, health care employers should consider welfare measures as a worthy investment because it has two-fold benefits. It can improve the QWL of employees and raises their standard of living as well as provide the organisation with stable and productive employees (Bhattacharjee, 2015). Moreover, the organisation should offer a range of diverse welfare benefits that fits the employee's needs at different life stages, and employees' must have a choice over the mix of benefits that they receive to derive better satisfaction. Employers favouring flexible welfare benefits can promote employee appreciation of benefits, change employee attitude towards benefits utilisation, communicate the value of benefits to employees, and differentiate themselves from competitors (Koo, 2011). Based on the above argumentation, it can be proposed that:

H_{2b}: *Employee welfare measures are the determinant of quality of work life of health care employees.*

Grievance Management

A grievance can be defined as any dispute that arises between an employer and employee, which relates to the implied or explicit terms of the employment agreement (Hunter and Kleiner, 2004). There are several types of grievances from employee's side like

complaints, unfair treatment, broken employment agreement, employer communications, and defamation. Cooke and Saini (2015) investigated grievance management in different sectors of Indian economy. The primary sources of grievances reported by respondents were promotions, career development, performance appraisal, pay, job classification, relationship with line managers, amenities, working hours, service matters, discrimination, health and safety, disciplinary action, harassment, and bullying. The study also reported the mechanisms adopted by organisations to manage grievances like observation, formal procedure, exit interviews, open door policy, opinion survey, employee suggestions, and committees. Grievance procedures are intended to provide peaceful means for resolving a conflict (Nurse and Devonish, 2006). The unionised sectors of the economy have formalised grievance systems with well-defined stages while the non-unionised sector has employee manuals and handbook that have provisions for disposition of grievances. Further, employers in the non-unionised sector cannot afford to ignore the grievance concerns of their employees for due compliance with the process and fair treatment. Roche and Teague (2012) conceptualised two contrasting grievance management approaches, formal and informal. The first approach is traditional consisting of formal and hierarchical procedures (compulsory or voluntary) and sometimes involve a third party. The second approach is softer, remedy oriented and proactive to prevent grievances by making the employee feel valued and involved. In most organisations, the grievance related to employment relations is informally discussed by the aggrieved employee with the immediate supervisor and is often resolved without entering the formal grievance system (Roche et al., 2014). Furthermore, the grievance mechanisms should be designed to provide workplace justice, consistency, and uniformity of outcome. Strategies such as effective listening, reframing and elevating the definition of the problem can lead to better resolution of grievances. The most vital factors for effective grievance handling are the attitude of supervisors, the time taken in giving the decision and the follow-up mechanism (Ghosh et al., 2014). The emerging grievances should also be resolved quickly and fairly to avoid long-term strain in the employee-employer relationship (Griffith, 2010). Government doctors in Odisha reported dissatisfaction in grievance redressal practices due to the inadequate time allotted for expressing a grievance, long travel to the state level office for redressal and cumbersome process of accessing the grievance officer (Kadam et al., 2016). Joshi (2007) suggest that the design and implementation of grievance handling mechanisms in a proactive manner can enable better QWL in organisations. Saklani (2010) captured the QWL expectations of non-managerial employees in different sectors

of Indian economy and revealed that equitable treatment, governance by the rule of law and proactive grievance redressal are critical components of employee QWL. Effective grievance management can create healthy work environments and enhance QWL that can benefit both employees and patients (Gerardi, 2004; Gayathiri et al., 2013). Hoffmann (2012) found that worker's cooperatives that emphasised on equitable and shared power could lead to workplace dispute resolution, which is a key determinant of QWL. Also, the grievance system of the organisation should support procedural justice to be a strong predictor of QWL (Moghimi et al. 2013). Nevertheless, the fairness perception about grievance procedures prevailing in the organisation can lead to the development of ownership feeling among employees (Shukla and Singh, 2014). Effective grievance redressal mechanism can increase motivation and encourage health care workers to serve in rural, remote, and underserved areas (Lisam et al., 2015). Further, the existence of a credible grievance system that encourages prompt redressal can enhance employee trust and lead to employee engagement (Thomas and Pingle, 2015). The discussions in the above sections provide ample facts to suggest that:

H_{2c}: *Grievance management system has a significant effect on quality of work life.*

Teamwork and Communication

Teamwork refers to a behavioural process that people use to accomplish interdependent work and the affective, cognitive, and motivation states that emerge during the course of that work (Valentine et al., 2015). Team members usually have complementary skills and generate synergy by capitalising on their strengths and minimising their weaknesses. Communication in organisations serves as a vector for information sharing, collaborative decision-making, coordination of work efforts, motivation, and identification (Propp et al., 2010). The team-based approach to care that converges skills, expertise and experience of employees have several advantages, yet the risk is created due to inadequate and ineffective communication among team members. There has been a plethora of literature highlighting the role of teamwork and communication in health care organisations. Health care environment is very complex, which is characterised by ambiguous situations, multicomponent decisions, informational overload, severe consequence of error as well as severe time and performance pressure (Conigliaro, 2014). Further, liquid health care teams are often formed on an ad hoc basis from a pool of workers, so team members must also shift from their comfort zone of closed teams to embrace the fluid team process

(Bleakley, 2013). Teamwork in health care system may result in an increase in productivity, concern for quality, time efficiency, staff morale, and patient satisfaction, as well as flatten management structure, and lower stress for staff and patients (Glassop, 2002, Kaissi et al., 2003). Failure in coordination and communication in health care teams can jeopardise patient safety, lead to higher mortality rates, longer patient stay, and increase nursing turnover (Mills et al., 2008). Organisations can create supportive and productive health care teams by creating multidisciplinary teams, introducing new team members, and providing specific training to team members like cross training, playing and simulations (Kalisch, 2007, Kilner and Sheppard, 2010). The organisational hierarchy and line of authority between physicians, nurses and other health care workers may negatively affect teamwork and the ability to communicate honestly and efficiently. Standardised tools and behaviour should be adopted to build a common model and bridge the differences in communication styles of health care workers (Leonard et al., 2004). Standardised tools such as SBAR (situation, background, assessment, and recommendation), critical language, briefing, debriefing, checklist and read back protocols as well as behaviours such appropriate assertion and situational awareness can improve communication in health care teams (Gluyas, 2015). Researchers have associated teamwork with higher levels of QWL (Wheelan et al., 2003; Brunault et al., 2014; Howe, 2014) and job satisfaction (Gifford, 2001). Extant literature has established communication as an objective trait that determines QWL (Lewis et al., 2001; Vagharseyyedin et al., 2011b). A culture of open communication based on trust gratifies the interpersonal needs of the pleasure and inclusion (Madlock, 2008), as well as enhances job satisfaction (Khani et al., 2008). Yeo and Li (2011) suggest that communication (open dialogue and feedback) and collaborative teamwork are vital determinants of QWL. Further, the combined exchange process of communication dominated by reciprocity and supplemented by rationality affects the QWL of health care employees (Rai, 2013). Manser (2009) concluded that health care providers do not totally accept the contribution of teamwork towards improved staff wellbeing and patient outcomes. Effective teamwork and communication in health care cannot be achieved overnight but requires a culture change and institutional commitment towards these goals (Deering et al., 2011). It is pivotal for organisations to develop worker's competence, improve health care processes through collaboration, develop team training methods, and design wards to facilitate high-quality teamwork (Estryn-Béhar et al., 2007). Further, organisations also need to foster the values and behaviours necessary to build and unlock the power of high performance team

(Pathak and Singh, 2012). Thus, health care organisations should be cognizant of the explicit and implicit communication needs of the employees and appreciate the positive contribution of teamwork towards employee QWL and service delivery. Therefore, based on the above argumentation, it is hypothesised that:

H_{2d}: *Teamwork and effective communication system have a significant relationship with the quality of work life.*

Empowerment and Involvement

Empowerment is the process of providing authority to the employees to take crucial decisions about their day-to-day events (Hass, 2010). Further, empowerment is the entrustment of decision-making power to the employees as well as the discretion to act independently (Arneson and Ekberg, 2006; Samad, 2007). The concept of empowerment is rooted in the role of power experienced by the employees through perceived competence control and energy to accomplish valued goals (Menon, 2001). Empowering employees can encourage decision-making at lower levels of an organisation and enrich their work experience (Liden et al., 2000; Dainty et al., 2002). The contemporary literature discusses two key concepts of empowerment: psychological and structural (Mathieu et al., 2006). Studies on psychological empowerment focused on employee's feelings and experiences of being empowered (Avolio et al., 2004; Chen et al., 2007). Spreitzer (1995) defines psychological empowerment as improved intrinsic task motivation exhibited by an individual through four cognitions namely (meaning, competence, self-determination and impact). Meaning refers to the value of a work goal in congruence with an individual's values and standard. Competence relates to the person's confidence in the ability to perform the work with skills. Self-determination refers to an individual's autonomy in initiating and regulating actions. Finally, impact refers to individual's influence on strategic, administrative and operating outcome of work. In contrast, studies on structural empowerment have highlighted on the introduction of empowerment initiatives by the top management and delegation of authority along with responsibility down the hierarchy (Leach et al., 2003; Mills and Ungson, 2003). Kanter (1993) and Laschinger (1996) define structural empowerment as workplace structures that enable employees to carry out work in meaningful ways. These structures empower employees by providing access to information required to perform the job effectively, support from peer and supervisor feedback, resources like time and supply to carry out job

and opportunity for learning and growth within the organisation. Many research studies have utilized the structural empowerment (Nedd, 2006; DeVivo et al., 2013), psychological empowerment (Kostiwa and Meeks, 2009; Boudrias et al., 2012) and both structural as well as psychological empowerment (Chang and Liu, 2008; O'Brein, 2011) as a yardstick to measure empowerment among health care employees. Empowerment arises from the environment or the psychological state of an employee. Structural and psychological empowerment at work has a strong relationship with perceived work effectiveness of the employee (Jennings, 2008). Empowering working conditions have been positively linked to autonomy, performance, engagement, job satisfaction and retention of health care employees (Laschinger et al., 2006; Casey et al., 2010). When employees are involved in their work with the spirits of vigour and commitment, it makes a significant difference to their QWL (Manojlovich, 2005). Empowerment can enrich individual's QWL at workplaces, where they have control over their workload, get support from the peers, feel more rewarded for their accomplishments and are treated fairly. Manojlovich and Laschinger (2007) tested the nursing worklife model by introducing structural empowerment as a precursor for work life. Empowerment in health care employees reduces stress, improves the perceptions of respect and fair play and enhances QWL (Laschinger, 2008; Caspar and O'Rourke, 2011). Sheikhepoor and Sheikhepoor (2015) found that among the aspects of empowerment (independence, effectiveness, meaningful, trust, and competence), 'trust between colleagues' significantly predicted QWL in nurses. Coburn and Hall (2014) examined the relationship between psychological empowerment, QWL and job satisfaction across nurses of multiple generations. The results reveal higher psychological empowerment and job satisfaction in baby boomers when compared to generation X and millennials. However, the three generations of nurses did not differ in their perceptions of QWL. Health care organisations must ensure that employees are empowered to provide a high quality of care to their patients. Further, the employees should have the willingness, desire and ability to embrace the empowered working conditions and accept the umbrella of responsibilities bequeathed upon them (Appelbaum et al., 2015). Thus, the following proposition is considered:

H_{2e}: *Employee empowerment and involvement will influence the quality of work life of health care employees.*

Work-Life Balance

Work-life balance is the ability of the employee to meet the requirements arising from his work and family domains and achieve satisfaction in all life domains. Kaliath and Brough (2008) conceptualised work life balance as equity, satisfaction, fulfilment of role salience and perceived control between multiple roles. Bulger (2014) suggests that the term balance is a distinctive construct that represents the absence of conflict between work and personal life rather than the assumptions of equivalence between domains. Further, it is a holistic concept that is unique to individuals and depends on his life values, priorities and goals (Kossek, 2014). Greenhaus et al. (2003) divided work life balance into three components such as time balance (equal time devoted to work and family roles), involvement balance (equal psychological involvement in work and family roles), and satisfaction balance (equal satisfaction derived from work and family roles). Employees must attempt to attune their work and non-work roles, subsequently to avoid role interference and enhance life satisfaction (Md-Sidin et al., 2010). Employees can have a balanced life, when the work and family mutually reinforce each other i.e. work experiences enrich family life and vice versa (Zhao et al., 2011). Work-life balance helps to reduce the sources of stress, increase employee morale, commitment, satisfaction, and retention as well as aids in organisational performance (De Cieri, 2005; Beauregard and Henry, 2009). Work life balance is a mechanism that drives psychological availability, which helps to unleash positive energy essential to realise one's potential (Russo et al., 2016). Health care workers frequently experience work-life strains due to time pressure and have a lack of time and energy for family and personal life (Yildirim and Aycan, 2008). Weekly hours of work and caring responsibilities are determinant of employees' work-life balance (Dex and Bond, 2005). Health care employees regularly work in shifts and do overtime to handle normal variations in patient census and to control chronic understaffing (Bae, 2012). Working in odd hours, and in shifts often contributes to poor QWL among health care employees (Joshi, 2007). Research has consistently urged that work-life balance can augment the QWL of employees (Greenhaus and Powell, 2006; Beham and Drobnic, 2010). Several factors of work intensity like weekly working hours, the number of consecutive workdays, leave entitlements, night shifts, length and frequency of rest break has a strong relationship with QWL of employees (Díaz-Chao et al., 2014; Harris et al., 2015). On the offset, organisations can introduce work-life balance initiatives like flexible work arrangements, elderly and childcare facilities, personalised leaves policies, preferred shifts and compressed workweeks (Smith and Gardner, 2007).

These initiatives help the employees to coordinate and integrate the work and non-work aspects and improve the QWL (Belwal and Belwal, 2014; Bophela and Govender, 2015). Conversely, employees who experience interference between work and personal life are more prone to reduced psychological wellbeing, physical health and poor QWL (Mehdizadeh, 2016). Sullivan (2014) suggests that work-life balance is an important aspect of QWL but measures taken to promote work-life balance must not interfere with organisational performance. Work life balance strategy adopted by the organisation has two distinct sides, the employer side, and employee side. The employer may introduce initiatives, policies, and benefits to manage the external life issues and help employees to focus better on the job. Alternatively, the employee must also create a balance that will optimise their opportunities and responsibilities (Bird, 2006). Further, work-life balance policies, culture and programs should cater to the needs of a multigenerational health care workforce that hold different meaning and significance for life events (Skinner et al., 2014). Since, private health care units in India have given less emphasis to family-friendly policies for employees; it is indispensable to examine the role of such an intervention towards better QWL (Baral and Bhargava, 2009). The above arguments present sufficient reasoning to derive the following proposition:

H_{2f}: *Work-life balance initiatives will demonstrate an impact on quality of work life of health care employees.*

4.3.3 Employee Commitment

Employee commitment refers to an employee's attachment and identification with the organisation as a whole (Mowday et al., 2013). Further, commitment is a force that binds an individual to a target and to a course of action relevant to that target (Meyer and Herscovitch, 2001). Commitment can be directed towards different foci like organisation, occupation, supervisor, work teams, customers, programs and change initiatives (Meyer et al., 2004). Meyer and Allen (1991) proposed three dimensions of commitment, namely affective, continuance, and normative. Affective commitment is based on intrinsic personal desire, which entails emotional attachment, identification, and involvement in the organisation. Continuance commitment is the awareness of the cost related with leaving the organisation (loss of personal investments, limited employment alternatives). Lastly, normative commitment is the feeling of obligation to continue in the employment.

Considering the three dimension of commitment individually, the affective commitment has the strongest positive influence on in-role and discretionary performance followed by normative commitment while continuance commitment has no effect or negative effect on discretionary performance (Meyer et al., 2012). Several research works have proved that the dimensions of commitment are mutually interacting and reinforcing. Cohen (2007) asserts that commitment is composed of two dimensions, the timing of commitment (pre-entry and post-entry in the organisation) and nature of commitment (instrumental and psychological attachment). Liou (2008) emphasised on five stages of development of commitment based on employee's interaction with his environment. The first stage is 'exploration' of the outcomes of positive relationship with the organisation. The second stage is 'testing' the willingness and ability to deal with the negative elements of the organisation. The third stage is the 'passion' to accept the organisation and contribute to its goals. The fourth stage is feeling of 'boredom' due to routine tasks and seeking of challenging tasks. The fifth stage is 'integration' of the positive and negative elements of the organisation resulting in a flexible, complex and enduring bond of commitment. San Martin (2008) reports that employees' trust on the firm, satisfaction with job and labour conditions, the perception of flexibility, access to relevant information and feeling of independence can enable them to be committed to the organisation. Chew and Chan (2008) confirm that HR practices like fit between person and organisation, remuneration, recognition, challenging assignments, training and career development can positively influence employee commitment. Froese and Xiao (2012) suggested that, when the HRM system of a company matches with the work values of the employee, it would lead to enhanced job satisfaction and organisational commitment. Consequently, Meyer and Maltin (2010) advocated the features of a committed employee as one who stays with the organisation through thick and thin, attends work regularly, protects company's assets, shares company's goals, performs effectively, displays organisational citizenship behaviour, and is less likely to leave the organisation. The employee commitment has been explored considerably in health care literature (McNeese-Smith and Nazarey, 2001; Jalonen et al., 2006; Beukes and Botha, 2013). Previous research has revealed the action mechanism of several predictors on employee commitment such as organisational support (Al‐Hussami, 2009), supervisor-subordinate relationship, teamwork (Brunetto et al., 2013), communication (Chang and Chang, 2009), organisational climate (Liou and Cheng, 2010) and job satisfaction (Wang et al., 2012). In health care organisation, employee

commitment can be assessed by considering multiple factors like hospital culture, the effectiveness of communication, quality of management, job design, pay and benefits, and hospital ownership status (Top and Gider, 2013). Further, employee commitment can result in enhanced organisational citizenship behaviour, job performance (Tourigny et al., 2013), service quality (Tsai and Wu, 2011), low intention to quit (De Gieter et al., 2011) and customer-oriented prosocial behaviour (Hsu et al., 2011) in health care organisations.

QWL and Employee Commitment

The relationship between QWL and employee commitment is based on the social exchange theory, which suggests that a person receiving a benefit is under a strong normative obligation to reciprocate the benefit in some way (Ojedokun et al., 2015). Employees who enjoy a sense of better QWL are likely to exhibit confidence at their jobs and this affirmative attitude may result in commitment towards the organisation (Sirgy et al., 2001). Furthermore, employees often evaluate the organisation's efforts to make their work life satisfying. A positive evaluation can increase motivation, influence behaviour at the workplace and guarantee their permanence in the organisation without considering the circumstances (Steyrer et al., 2008). Extant literature has provided evidence on the positive and significant influence of QWL on employee commitment (Tamini et al., 2011; Farjad and Varnous, 2013, Almarshad, 2015). Huang et al. (2007) concluded that the QWL dimensions of work-life balance, supervisory behaviour, and compensation and benefits can enhance employee's commitment to the organisation. Consistently, Normala (2010) found a positive relationship between QWL factors such as growth and development, participation, supervision, pay and benefits and social integration with commitment. Lee et al. (2007) have observed that QWL has a greater influence on the commitment of employees through the satisfaction of higher order needs (social, esteem, self-actualization, knowledge, and aesthetic). Further, developing friendly workplace, promoting respect and recognition, supporting employee's desire for knowledge, and creating work to maximise employee's potential can aid in satisfaction of higher order needs. On the contrary, Koonmee et al. (2010) reported that employee commitment is significantly related with QWL through the satisfaction of lower order needs (health and safety, economic and family). In health care organisations, the increase in quality of work life of nurses leads to a significant increase in organisational commitment (Eren and Hisar, 2016). Sharma and Dhar (2016) suggested that the emphasis on progressive organisational culture, supportive work environment, transparent organisational structure

and procedures could positively influence commitment of nurses. Moreover, health care organisations should critically analyse the factors that contribute to life satisfaction of nurses to design strategies for enhancing commitment (Vanaki and Vagharseyyedin, 2009). Farid et al. (2015) recommend that employers who are interested in augmenting the commitment of employees should assess their QWL and design methods to improve this index. Better QWL can motivate employees through the satisfaction of economic, social and psychological needs, which can empower them in personal life and enhance organisational commitment (Mathew and Panchanathama, 2010). High level of QWL will act as a centripetal force, and positively influence employee's sense of identification with the organisation (Zhao et al., 2013). Thus, the following assumption is proposed:

H_3: Employee commitment is an outcome of the perceived quality of work life of the health care employees.

4.3.4 Turnover Intention

Turnover intention refers to the subjective estimation of the employee regarding the probability of leaving the organisation in near future (Carmeli and Weisberg, 2006). It is a conscious and deliberate wilfulness to leave the organisation (Tett and Meyer, 1993). Additionally, it is the final step in withdrawal cognition process, which includes the thoughts of quitting and intention to search for alternative employment. The concept of turnover intention differs from turnover. Turnover refers to the act of actually leaving the organisation while the turnover intention is the perception to leave the organisation. Thus, the actual behaviour of the employee may be different from the intention (Park and Kim, 2009). Still, most of the researchers have examined turnover intention (turnover intent, intention to quit, intention to leave, anticipated turnover) to be the best and accurate predictor of actual turnover across industries (Brewer et al., 2009; Liu and Onwuegbuzie, 2012). Castle et al. (2007) indicated that the turnover intention consists of a progression of three phases, thinking about leaving, thinking about searching a job and searching a job. The decision to leave an organisation is initiated by job dissatisfaction followed by search of alternative jobs, accepting a job offer and lastly leaving the organisation (Kashyap and Rangnekar, 2014). Maertz and Campion (2004) identified eight motivational forces that are the reasons of voluntary turnover namely affective, calculative, contractual, behavioural, alternative, normative, moral and constituent forces. These motivational

forces were uniquely configured to derive four decision types i.e. impulsive quitters (leave a job quickly), comparison quitters (rationally compare alternate jobs), preplanned quitters (plan when to quit) and conditional quitters (plan to quit if some uncertain events occur). Hooi and Leong (2015) found that the primary determinants of turnover intention of an employee are job satisfaction and compensation. The turnover intention of health care employees has been studied by several researchers (Lu et al., 2002; Coomber and Barriball, 2007; Flinkman et al., 2010). There are several factors that drive the employee's intention to leave the organisation like leadership practices (Cowden et al., 2011), workplace justice (Byrne, 2005) and empowerment (Cai and Zhou, 2009). Conklin and Desselle (2007) found that excessive workload, seeking a new challenge, poor salary, and poor collegial relationships as reasons for turnover among pharmacy faculty. Further, Applebaum et al. (2010) indicated that level of job satisfaction, career prospects, mobility, and satisfaction with one's personal life interact together to affect turnover intention among nurses. Consequently, turnover intention can result in an actual turnover (Hayes et al., 2012) and intention to leave the profession (Parry, 2008).

QWL and Turnover Intention

Extant literature provides evidence that the perception of QWL is negatively related to turnover intention (Celik and Oz, 2011; Mosadeghrad et al., 2011). Huang et al. (2007) examined that the factors of QWL were significant predictors of turnover intention. They further indicated that perception of work-life balance decreases turnover intention, but the meaning and creative job characteristics encourage employee's intent to leave. Furthermore, QWL initiatives like supervisory support, career opportunities and fair reward system can reduce the intention of employees to exit the organisation (Korunka et al., 2008). Surienty et al. (2014) revealed that QWL factors such as work-life balance, job characteristic and supervisory behaviour have a significant negative relationship with turnover intention. In the case of health care employees, Almaki et al. (2012) observed that QWL dimension of work context and work design had a negative and significant effect on turnover intention of nurses. Lee et al. (2013) found that four QWL dimensions, a supportive milieu with job security and professional recognition, work arrangement and workload, work/home life balance, and nursing staffing and patient care negatively predicted nurses' intention to leave the organisation. The turnover decision of nurses is based on psychological thinking, understanding and behavioural choices after comparing the QWL in the current job with their expectation (Zhao et al., 2013). Further, Lee et al.

(2015) found that QWL predicted the intention to leave profession and organisation better than an intention to leave units among nurses. Based on the above discussion, the following proposition is considered:

H_4: Perceived degree of quality of work life will have an inverse relationship with the turnover intention of health care employees.

Employee Commitment and Turnover Intention

Employee commitment plays an important role as an antecedent of turnover intention and actual turnover (Wagner, 2007; Joo and Park, 2010). Cole and Bruch (2006) suggest that the perception of organisational identification and commitment may influence turnover intention of employees. Stanley et al. (2013) combined affective, normative and continuance commitment into different profiles and determined its effect on turnover intention. They found that affective dominant, affective-normative dominant and committed profiles displayed lower turnover intention than continuance dominated and non-committed profiles. Chang et al. (2007) indicate that normative organisational commitment is negatively correlated with organisational turnover intention, and affective occupational commitment is negatively correlated with occupational turnover intention. Therefore, it is hypothesised that:

H_5: Employee commitment will have an inverse relationship with the turnover intention of health care employees.

4.3.5 Mediating Role of Employee Commitment

Prior research provides evidence relating to the mediating role of employee commitment. Liou (2009) proposed that the degree of employee commitment is a predictor of intention to leave and is a mediator between intention to leave and work experience, personal characteristics and perceived job characteristics. The research work of Vandenberghe and Tremblay (2008) evidenced that satisfaction with pay reduced employee turnover intention by enhancing affective commitment and increasing the cost associated with leaving the organisation. Galletta et al. (2011) found that affective commitment fully mediated the relationship between autonomy, work motivation and turnover intention. Poon (2012) observed that at a high level of procedural justice, affective commitment

partially mediated the relationship between distributive justice and turnover intention and at low procedural justice, affective commitment fully mediated this relationship. Kamel (2013) reveals that QWL measures can enhance employee commitment, which will result in reduced turnover intention. Therefore, the following assumption is proposed:

H_6: Employee commitment will act as a mediator in between the quality of work life and turnover intention in health care organisations.

4.3.6 Mediating Role of QWL

The literature in the previous sections clearly depicts that there is a great deal of research exploring the relationship between specific job dimensions and HR interventions with QWL, as discussed in section 4.3.1 and 4.3.2 respectively. The association of QWL with employee commitment and turnover intention has also been comprehensively illustrated in section 4.3.3 and 4.3.4. The extant literature also indicates the connection of specific job dimensions and HR interventions with employee commitment and turnover intention which has been discussed below. Thus, the existing works have explored the significant relationship between the study variables (job dimensions, HR interventions, QWL, employee commitment and turnover intention) in dyads. However, no study has investigated the relationship of job dimensions and HR interventions as a single entity with employee commitment and turnover intention. Further, there are limited studies that explore the mediating effects of QWL (Cheung and Tang, 2009; Totawar and Nambudiri, 2014, Shen et al., 2016). However, no study has examined the role of QWL as a mediator among the association of job dimensions, HR interventions, employee commitment and turnover intention. This research tries to cover this gap by exploring the mediating mechanisms of QWL among these variables in the context of health care employees.

Job Dimensions and Employee Commitment

The influence of job dimensions like physical work environment, occupational stress, career growth and development, job characteristics, compensation and rewards, and social support on employee commitment has been explored in several studies. McGuire and McLaren (2009) suggested that positive work environment could influence the well-being of employees and generate higher levels of commitment. Klassen and Chiu (2011) indicated that employees with high level of work related stress have less commitment to

their job and a stronger desire to quit the profession. Bulut and Culha (2010) revealed that the organisational training dimensions like 'motivation for training', 'access to training', 'benefits from training' and 'support for training' have a positive effect on the commitment of employees. Hsu and Liao (2016) advocated that the commitment of employees could be enhanced through efficient job characteristics such as increased task identity, task significance, autonomy, and feedback. Wang et al. (2010) found that pay satisfaction significantly influences employee commitment and more specifically, the financial pay satisfaction was the strongest predictor of employee commitment. Rousseau and Aubé (2010) proposed that the support provided by immediate supervisor and co-workers can create positive work experiences by satisfying the needs for esteem, approval, and affiliation, which can improve the employee's affective attachment with the organisation. Thus, the following propositions are considered:

H_7: Job dimensions are the significant predictor of employee commitment.

H_8: Quality of work life will play a mediating role in between the association of job dimensions and employee commitment.

HR Interventions and Turnover Intention

Extant literature has given sufficient justification on the impact of HR interventions like job security, employee welfare, grievance management, teamwork and communication, empowerment and involvement, and work-life balance on turnover intention. Mauno et al. (2014) validated the negative effect of job insecurity on turnover intention of employees. Carraher (2011) proposed that the attitudes of the employee towards welfare measures vary among individuals and across time. Therefore, organisations should regularly assess the employees regarding their priority of welfare benefits and communicate the value of the benefits to retain the employees. Haines et al. (2010) confirmed that the presence of formal dispute resolution procedures in organisations is associated lower voluntary turnover rates. Osman et al. (2016) verified that teamwork can develop high commitment among team members and a two-way communication system can encourage feedback, provide clear job expectations and sustain long-term relationships, which may be helpful to reduce turnover intention. De Villiers and Stander (2011) suggested that when employees' experience psychological empowerment through meaning, competence, impact, and self-determination in their job role, it will lead to higher engagement and lower turnover intention. Shankar and Bhatnagar (2010) proposed that better work life

balance of employees could result in decreased intention to quit the organisation. Thus, based on the above discussions, it can be proposed that:

H_9: Human resource interventions will have an inverse relationship with the turnover intention of health care employees.

H_{10}: Quality of work life will act as a mediator in between the association of HR interventions and turnover intention.

Job Dimensions and Turnover Intention

The impact of job dimensions like physical work environment, occupational stress, career growth and development, job characteristics, compensation and rewards, and social support on turnover intention has been evidenced in previous literature. Yoon and Kim (2010) highlighted that a poor physical environment will increase the turnover intention of the employees. Further, the environment factors like odour, noise, light, and colour can influence the stress level of the employees, which may affect the intention to change jobs (Applebaum et al., 2010). Weng and McElroy (2012) emphasised that the elements of career growth like 'career goal progress' and 'professional ability development' has a negative relationship with turnover intention. Chang et al. (2013) suggested that to reduce turnover intention of employees, managers should create 'work design' features that include motivational, social, and work-context characteristics. Bryant and Allen (2013) advised that a competitive compensation and benefits policy may not be a standalone strategy to retain employees but the organisation should focus on pay dispersion, clearly communicate standards and procedures used to make pay decisions, and ensure fairness and equity in determination and administration of pay and benefits. Newman et al. (2011) disclosed that improving social support through visible supervisor support and co-worker networking schemes, is a relatively inexpensive and practical measure to promote employee retention. Therefore, the following hypotheses are proposed for empirical validation:

H_{11}: Job dimensions have a substantial effect on turnover intention.

H_{12}: Quality of work life will play a mediating role in between the association of job dimensions and turnover intention.

HR Interventions and Employee Commitment

The effect of HR interventions like job security, employee welfare, grievance management, teamwork and communication, empowerment and involvement, and work-life balance on employee commitment is considered in the subsequent review. Elst et al. (2011) revealed that the threat or the concern of job loss (job insecurity) could negatively influence the affective commitment of employees. Further, the organisations that foster the climate of job security will stimulate increased level of commitment from the employee to the organisation (Nasurdin et al., 2014). Ahmad and Scott (2015) found that the welfare measure has a significant relationship with employee commitment. Further, the measures that comprised of allowances, free service, and facilities had a greater correlation with affective commitment. Farndale et al. (2011) suggested that the existence of mechanisms, which facilitate employee voice, and a climate that encourages employees to put forward their ideas has a significant influence on the degree of commitment. Brunetto et al. (2013) confirmed that teamwork explained the level of nurses' commitment to their hospital and their intention to leave. Albrecht and Andreetta (2011) emphasised that workplace empowerment can provide the enabling conditions for employees to experience affective commitment and the propensity to stay engaged with their organisation. Caillier (2013) advocated that employee satisfaction with work-life benefits (telework, health and wellness programs, childcare, and eldercare) were positively associated with organisational commitment. So, based on the above argumentation, it is suggested that:

H_{13}: Human resource interventions are the significant predictor of employee commitment in health care organisations.

H_{14}: Quality of work life will represent as a mediator in between the association of HR interventions and employee commitment.

The antecedents of QWL (job dimensions and HR interventions) have been explored through extensive literature review, which can be restructured to enhance employee commitment and lower turnover intention of employees in health care organisations. The existing studies also explicate that QWL has a significant association with employee commitment and turnover intention of health care employees. These associations are integrated into the proposed hypothesised research model (figure 4.1).

4.4 Research Gap

- The review of literature illustrates that there is a lack of research on QWL of health care employees and its significance in reducing turnover intention in the Indian health care context. The research in these areas has focussed mainly on Western and the Middle East countries followed by China. Further, these studies have primarily emphasised on nurses rather than on other categories of health care employees like pharmacists, laboratory technicians and radiology technicians.
- In prior research, the physical work environment has been associated with temperature, lighting, storage area, personalised workspace, noise level, supplies and equipment hazards protection and clean and healthy surrounding. In addition to these factors, few additional aspects have been identified, such as 'seating arrangements' and 'verbal abuse and violence'. The health care employees do most of their work activities in standing position or by moving around. Therefore, there is a need for seating arrangements to enable them to take rest during work hours. Further, the health care environment consists of several people in diverse state of mind that sometimes leads to verbal abuse and violence on the employees. An environment that is free from verbal abuse and violence can positively influence QWL.
- The occupational stress studies focus on sources of stress in the workplace rather than assessing the stress experienced by the employees. The stress experienced by health care employees is usually gauged by the amount of job pressure, strain, deadlines and workload. This research explores the effects of stress at work and beyond work by adding variables like, 'frustration' and 'worn out and weariness'. The health care employees may feel stressed due to certain aspects of the job instead of the overall job. Thus, it is necessary to examine each aspect of the job minutely to determine the source of stress. Further, the stress experience during job may also permeate beyond the workplace and employee may feel worn out and weary. This aspect of stress should also be taken into account to design mechanisms that will enable employees to manage stress and enhance their QWL.
- In several studies, the factor of career growth and development relates to parameters like advancement opportunities, career counselling, developing new skills, feedback and training programmes. However, 'permission and financial

support' and 'skill assessment' also play a major role in augmenting QWL. The permission and funding for higher education from the health care organisation can reassure the employees to pursue their studies. Similarly, regular assessment of skills and abilities can help them to measure their strength and weaknesses as well as guide them to be skilful in their jobs.

- Job characteristics are commonly associated with skill, variety, significance, identity, autonomy, physical effort and exposure to hazards. Some other variables that can positively influence QWL are included in this study like 'challenging and interesting tasks' and 'interruptions in tasks'. The health care employees can learn new skills, enjoy and derive maximum satisfaction from an interesting and challenging job. Further, these employees face several interruptions while doing their tasks which leads to unfinished work. Thus, minimising the interruptions in the assigned task can help to complete a specific task and improve the QWL of employees.
- Most of the researchers have analysed compensation and rewards as separate variables. This research has integrated the attributes of compensation and rewards in a single factor. Compensation and rewards emphasise on salary rates, benefits, periodic raise, promotions and transfers, current position, performance incentives, and appreciation and recognition. This research includes few other parameters like 'salary determination', 'overtime and night shift payment' and 'basis for promotion'. The organisation should specify the basis for determining the salary of an employee. This will provide the employees with a transparent view of the pay system. The health care employees mostly work in night shift to provide patient care and work overtime to cover inadequate staffing. The fair payments received by the employees towards night shifts and overtime can compensate their efforts and encourage voluntary support towards the same. Further, the employees must also be aware of the criteria for promotion to able to perceive fairness and be satisfied with their work life.
- Many studies have investigated the role of superiors and co-workers towards better QWL in isolation. This study covers the features of superiors, co-workers and family in a single factor called social support. This attributes of the superior support comprise of help, recognition, and value from superiors. Likewise, support from co-workers includes information sharing and constructive criticism from co-

workers. Further, support from family is measured through emotional support, sharing of work problems and assistance to make career decisions from family. Additional variables related to supervisors and co-workers like ‘sharing problems with superiors’ and ‘feeling part of a family at work’ are included in this research. The employees should be able to share their work and personal problems with supervisors to perceive adequate support from the supervisor. Further, the employees should feel the members of the workplace are like a second family to them, which will enhance their QWL.

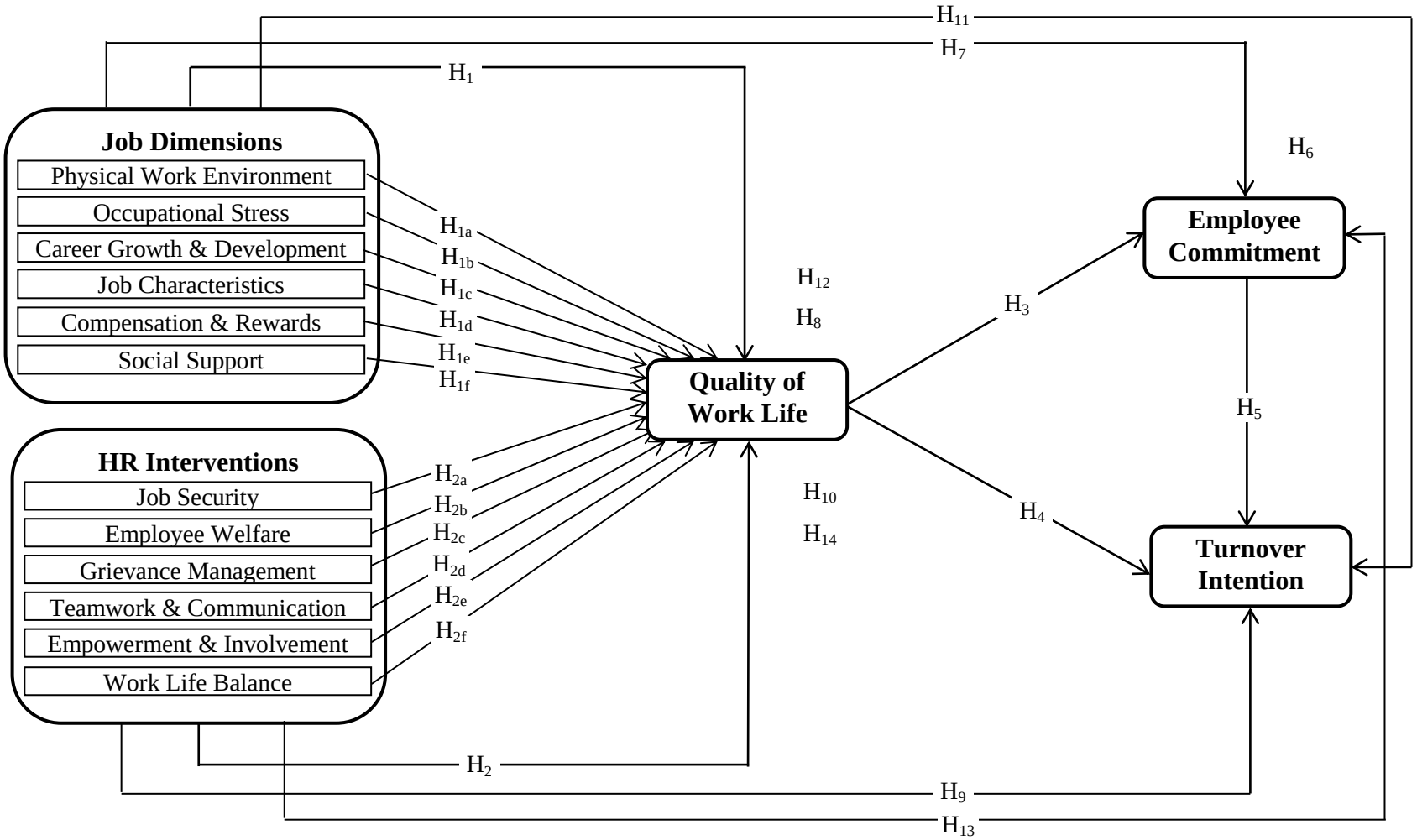
- The perception of job security is assessed by parameters such as low chances of dismissal desirable changes, continuity in the job and feeling secure. This research adds another parameter named ‘type of position’. In private health care organisations of India, employees are mostly assigned a temporary position and permanent position is assigned after serving the organisation for some years. Thus, this parameter can further explore the perception of job security among health care employees. Further, there has been considerably less focusing on the role of job security towards enhancing QWL of health care employees.
- The effect of employee welfare on QWL of health care employees is largely unexplored. This research highlights on a cluster of welfare measures that are present in Indian private health care organisations such as housing, conveyance, canteen, treatment of self and family, disablement compensation, provident fund and gratuity. These attributes can certainly provide information regarding the presence of welfare measures in the organisation.
- Extant literature is silent on the role of grievance management towards better QWL of health care employees. Grievance management is usually examined using the traits like freedom to express, adequate enquiry, transparent procedures and fair decisions. This study integrates some additional traits like ‘attention paid to grievances’ and ‘immediate implementation and follow-up’ to evaluate grievance management procedures effectively. The organisation along with providing freedom to express grievances must also pay attention to them and take them seriously. Further, the decision on the reported grievance must be implemented as soon as possible and follow up actions should be taken for proper grievance redressal. A fair and transparent grievance system can augment QWL of employees.

- The teamwork and communication studies focus on the complimentary skill set of the member, support, feedback, team performance, the timely relay of information, standardised method for information sharing and open communication. The study emphasises on another important aspect namely ‘respect for individual expertise from members’. The health care employees have gained expertise in their field of operation, which is useful while working in a team. This expertise should be effectively utilised and respected by the team members instead of attracting criticism. The positive feeling of being valuable in a team can improve QWL of employees.
- Several researchers have analysed empowerment and involvement as separate variables. This study has included the elements of empowerment and involvement in a single variable. Empowerment and involvement are measured with attributes like ‘opportunity to develop competence’, ‘awareness of values and goals’, ‘access to resources’, ‘flexible and decentralisation’, ‘sought out by peers and physicians’, ‘initiatives are welcomed’. This research includes few other parameters like ‘clarity of roles and responsibilities’, ‘participate in making decisions’, and ‘involvement in the open discussions’. The employee should have clarity about their roles and responsibilities in order to feel empowered. Organisations should include the employees as a part of the decision making process concerned with their jobs. Further, the employees must also be involved in the open discussions in different employee-employer forums to share their opinions. Thus, the feeling of being empowered and involvement in the functioning of the organisation can augment the QWL of employees.
- Child-care facilities, flexible timing, rotational shift and overtime work as evidenced from the previous studies assess work-life balance. This study focuses on ‘weekly leave’ and ‘maternity/paternity benefits’ as important criteria for achieving work-life balance. The health care employees require adequate leave entitlements such weekly holiday, casual leave, sick leave, emergency leave, etc. to cater to their personal as well as family needs. Further, the provision for maternity/paternity leave should be available for nurturing of their children. Sufficient leave entitlements can help the employees to spend time with their family as well as give their fullest effort at work.

- QWL in previous studies has been measured using several constructs. The commonly used factors are health and mental wellbeing, safety, pay satisfaction, good friends, leisure time, feel appreciated, recognition as a performer and realisation of potential. This research adds the attributes of 'personal growth' and 'ideal life' for assessing QWL. A better work life should provide the feeling of enhanced personal growth as well as a perfect life to the health care employees.
- Lastly, the role of QWL as a mediator among the association of job dimensions, HR interventions, employee commitment and turnover intention has not been explored in previous studies. Thus, this research contributes to theory by exploring the mediating mechanisms of QWL among these variables in the context of health care employees working in private health care units of India.

This chapter has provided a background of QWL and turnover intention in various industries, specifically in the health care sector. Most of the hospital-based research on QWL and turnover intention has been explored in Western countries. The decade-long research on the study variables has significantly ignored the private health care employees. Further, exploration is required in developing countries like India, where there is a dearth of information on the mechanisms of QWL and turnover intention. In the light of current and projected shortage of health care employee, this research can contribute to developing responsive management strategies to tackle the human resource challenges of health care sector. In this chapter, the researcher has reviewed the health care literature to explore the antecedents and outcomes of QWL. The literature review has revealed the antecedents of QWL, which are clustered under job dimensions and HR interventions. The job dimensions include the variables like physical work environment, occupational stress, career growth and development, job characteristics, compensation and rewards, and social support. The HR interventions include variables like job security, employee welfare, grievance management, teamwork and communication, empowerment and involvement, and work-life balance. The review also provided abundant evidence on the impact of QWL on employee commitment and turnover intention of health care employees. In this research, a holistic model (figure 4.1) has been devised that assembles the antecedents and outcomes of QWL in the novel context of health care. The job dimensions can be remodelled to convey the proactive approach of the organisation towards enhancing the QWL of employees. Further, the organisations can also assess the gap between the actual

and expected QWL of employees and introduce HR interventions to reduce the prevailing gap. The enhanced QWL of the employees may improve the commitment level and reduce the turnover intention. This work has weaved the study variables in a model to represent the perspective of private health care employees. This chapter also elucidates the attributes of the study variables in table 4.3. These study variables will undergo comprehensive analysis and the relationship between these variables will be established through empirical analysis.



Note: H_6: Mediating role of Employee Commitment; H_8, H_{10}, H_{12}, H_{14}: Mediating role of Quality of Work Life

Figure 4.1: Hypothesised Research Model

Table 4.3: Attributes of the Study Variables

Job Dimensions	
Physical Work Environment	Seating arrangements Temperature and lighting Storage area Personalised workspace Noise level Supplies and equipment Verbal abuse and violence Hazards protection Clean and healthy surrounding
Occupational Stress	Job pressure Nervous and strained Deadlines Workload Frustration Worn out and weariness Guiltiness to take time off from work
Career Growth and Development	Advancement opportunities Career counselling and assistance Permission and financial support Skill assessment Developing new skills Feedback and mentoring Training programmes
Job Characteristics	Skill Variety Significance Challenging and interesting tasks Interruptions in tasks Autonomy Physical effort Exposure to hazards
Compensation and Rewards	Salary rate Benefits Salary determination Periodic raise Overtime and night shift payment Promotion and transfers Current position Basis for promotion Performance incentives Appreciation and compliments
Social Support	Sharing problems with superiors Support from superiors Recognition and value from superiors Help from co-workers Sharing knowledge with co-workers Feeling part of family at work Constructive criticism from co-workers Emotional support from family

	Share problems with family
	Help for career decisions from family
HR Interventions	
Job Security	Type of position
	Chances of dismissal
	Undesirable changes
	Continuity in job
	Feeling secured
Employee Welfare	Housing facilities
	Conveyance facility
	Canteen facility
	Treatment of self and family
	Compensation for workplace injury
	Provident fund
	Gratuity
Grievance Management	Freedom to express
	Attention paid to grievances
	Adequate enquiry
	Fair decisions
	Immediate implementation and follow-up
	Transparent procedures
Teamwork and Communication	Complimentary skill set of members
	Support from members
	Feedback from members
	Performance of members
	Respect for individual expertise from members
	Timely relay of information
	Standardised method of sharing information
	Open communication
Empowerment and Involvement	Opportunity to develop competence
	Awareness of values and goals
	Access to resources
	Flexible and decentralisation
	Sought out by peers and physicians
	Clarity of roles and responsibilities
	Initiatives are welcomed
	Participate in making decisions
	Involvement in the open discussions
Work Life Balance	Weekly holiday
	Maternity/paternity benefits
	Child care/elderly care
	Flexible work timings
	Rotational shifts
	Overtime work
Outcomes	
Quality of Work Life	Health and mental well-being
	Feeling safe
	Pay satisfaction
	Good friends
	Leisure time
	Feel appreciated
	Recognition as a performer
	Realisation of potential
	Personal growth

	Ideal life
Employee Commitment	Sense of belonging Emotional attachment Moral obligation Loyalty Reluctance to leave Desire to stay Few options to leave Costly to leave
Turnover Intention	Wanting to find a comparable job Thinking to quit Will search for a new job Actively looking for a job Results of job search Leave the organisation Intend to leave this profession Stay with the present employer

Chapter 5

Research Design and Methodology

This chapter describes the methods employed to address the research objectives and provide ample explanation to the research questions about the relationship between the quality of work life (QWL) and the turnover intention of health care employees. This chapter provides the logical illustration of all the steps undertaken to carry out the research. The beginning section of the chapter deals with the research design, research universe, sampling methods, sample size, data collection methods and research instrument design. The second section of the chapter summarises the essential statistical tools and techniques employed to analyse the data and describe the practical implications of the inquiry.

5.1 Research Setting

Research is a systematic and scientific quest for relevant evidence to find a solution to an existing problem or issue. "Research is a process of steps used to collect and analyse information to increase our understanding of a topic or issue. It consists of three steps: "pose a question, collect data to answer the question, and present an answer to the question" (Creswell, 2012:3). According to Kothari (2004:1), "research comprises of identification of the problem, formulation of hypotheses, collecting, organising, and analysing data, making deductions and reaching a conclusion either in the form of a solution to a problem or generalisation of some theoretical formulation". Further, Cooper and Schindler (2014: 24) defined business research as a "process of determining, acquiring, analysing, synthesising, and disseminating relevant business data, information, and insights to decision makers in ways that mobilise the organisation to take appropriate business actions that, in turn, maximise business performance". The design and methodology for conducting the study must be predetermined for successful execution of the research process. The classification of all the research activities undertaken in this study is mentioned in the following five sub-sections.

5.1.1 Research Design

Every study requires a blueprint that will enable the researcher to identify the process and approach for collection and analysis of the desired information, which is called as research design. The research design combines the theoretical, methodological, and ethical considerations relevant to a particular study. This work has adopted descriptive research design to investigate the research problem in the study. According to Given (2008:761), "descriptive research design helps to provide answers to the questions of who, what, when, where, and how associated with a particular research problem". Descriptive research design is applied to acquire information regarding the existing status of the research problem. This approach is pre planned and structured in design in order to yield a large amount of data for comprehensive analysis that leads to relevant recommendations in practice. This research design is suitable for this study because it deals with the qualitative and quantitative features of a research problem and provides ample understanding about the nature and critical facts about the problem. Further, the research aims to test a comprehensive model that links the study variables of job dimensions, HR interventions, QWL, employee commitment and turnover intention. Although, the individual relationship among these variables in dyads has been explored in extant literature, none of the previous studies has investigated a holistic model as proposed in this research. Thus, this work has used several methods for conducting descriptive research like case study and survey, for systematic and pragmatic investigation of the research problem.

5.1.2 Research Universe

The primary objective of this research is to investigate the job dimensions and HR interventions that can enhance the QWL of health care employees. Further, the study also investigates the relationship among QWL, employee commitment and turnover intention of health care employees. The study encompasses the employees working in private health care units of Odisha to get a comprehensive view of the research variables. The private health care units which are covered in this study were nursing homes, non-corporate hospitals, and corporate hospitals situated in the major cities of Odisha, namely Bhubaneswar, Cuttack, Berhampur, Sambalpur and Rourkela. The respondents comprised of nurses, pharmacists, laboratory technicians, and radiology technicians.

5.1.3 Sampling Method

Sampling is a process that empowers the researcher to derive inferences about the population by assessing a subset of the population. A decent sample will have similar features as that of a population. Therefore, it is not necessary for the researcher to take a census of all the elements of a population in the study. The most indispensable part of research is the selection of samples that can represent the population adequately. This study has applied convenience sampling method to draw samples from the universe to collect opinions of the respondent. According to Saunders et al. (2009:241), "convenience sampling is a type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in the study". This sampling technique has several disadvantages such as selection bias and high sampling error. This sampling strategy is adopted in this research because it is often difficult to study a research population in social science due to the limitation of time, resources, and averseness of the private health care units to contribute to the survey. The researcher has visited only those units, which provided permission to conduct the study in their organisation. Further, the health care employees are overburdened with patient care and have less time to participate in the survey. Thus, convenience sampling was considered as a viable option to collect the data as approachability and collaboration of the participants were the major constraints in this survey. Table 5.1 elucidates some studies that have incorporated convenience sampling.

Table 5.1: Important Studies Undertaking Convenience Sampling

Author and Year	***Thrust of the Study***
Koh and Neo (2000)	Analyse the relationship between pay-for-performance and job satisfaction in the Singapore context.
Beaudoin and Edgar (2003)	Explore the frequency, relative magnitude and nature of hassles that affect the quality of nursing care, workflow and nurses retention.
McGilton et al. (2007)	Investigate the effects of perceived supervisory support provided by registered nursing staff on job stress and job satisfaction among nurse aides working in long-term care.
Tabassum et al. (2011)	Establish a corresponding relationship between quality of work life of the local private and foreign commercial bank employees through a quantitative survey.
Almalki et al. (2012a)	Assess the quality of work life among primary health care nurses in the Jazan region, Saudi Arabia.
Zhao et al. (2013)	Verify the effect of quality of work life, job embeddedness and affective commitment on turnover intention of clinical nurses.
Lee et al. (2015)	Investigate perceived the quality of work life need attributes and assess the asymmetric relationships between quality of work life attributes and job satisfaction.

The sample size is the number of respondents that are chosen from a population for the study. It is necessary to determine the statistical power and the accuracy of the results in social science research. The sample size of this study was determined by adopting the formula quoted by Charan and Biswas (2013) as depicted below:

$$N = \frac{Z^2 * P(1-P)}{E^2}$$

Where N is the number of samples, Z is the confidence level at 95%. P is the estimated prevalence of a trend in the population, and E is the margin of error at 5%. This study considers 95 percent confidence level at which the Z value is 1.96 as per the standard normal distribution table. P is the prevalence of turnover intention among health care employees, which was expected to be 50%. A margin of error of +/- 5%is assumed for the study. Thus, to compute the value of N, we have supposed (Z = 1.96, P = .05 and E = +/- .5).

$$N = \frac{(1.96)^2 * 0.5(0.5)}{(0.05)^2} = \frac{3.8416 * 0.25}{0.0025} = \frac{0.9604}{0.0025} = 384.16$$

Therefore, at least 385 samples would facilitate the assessment of the impact of QWL on turnover intention of health care employees. However, a larger sample can reduce the response bias and sampling error. The researcher conducted the survey by distributing the survey among 800 health care employees, almost double the prescribed sample size to overcome the sampling error and response bias concerned with convenience sampling.

5.1.4 Data Collection

The research considers the amalgamation of primary and secondary sources to generate maximum data on the variables of the study. The information that is collected afresh, for the first time from the research units and original in character is termed as primary data. The primary data collection started by listing the private health care units situated in the cities of Bhubaneswar, Cuttack, Berhampur, Sambalpur and Rourkela, which was

obtained from the website of Directorate of Medical Education and Training, Government of Odisha. The researcher approached the hospital administrators / managers of the concerned health care units to seek permission for conducting the survey through the administration of a structured questionnaire among their health care employees. The study was carried out only in the health care units, which have given the approval to conduct the proposed survey. The researcher visited each of the health care organisations and distributed a structured questionnaire to the respondents. The respondents were chosen randomly based upon their willingness and availability during the period of survey. The health care units were given several reminders, and the researcher collected these questionnaires from the respondents. The structured questionnaire was distributed among 800 respondents to elicit relevant information. The total response rate of the survey is seventy six percent (N = 609) after excluding non-responsed and incomplete questionnaires (Table 5.2). A researcher should endeavour to achieve a response rate of at least 60 percent to receive representative responses of the sample (Punch, 2003). The information that has been collected in the past on which statistical tests have been carried out, and which are available in current archives and published form is called secondary data. The study has collected secondary data from case studies, research reports, and other documents available in government websites along with journal articles and books from which the dominant trends and practices of QWL were available.

Table 5.2: Details of Valid Responses

Sl. No	***Town/Cities***	***No. of Health Care Units***	***Total No. of Questionnaires Distributed***	***Total No. of Questionnaires Received***	***Total No. of Valid Questionnaires***
1	Bhubaneswar	11	413	341	312
2	Cuttack	16	140	129	117
3	Berhampur	12	55	45	33
4	Sambalpur	14	98	81	74
5	Rourkela	8	94	85	73
	Total	61	800	681	609

5.1.5 Research Instrument Design

The study conducted an opinion survey using a structured questionnaire to investigate the hypothesised relationship demonstrated in the research. The essential factors that influence QWL and turnover intention in a health care set up were explored to design the questionnaire. The research instrument was prepared systematically through an extensive review of the works of previous researchers and the subsequent research gaps identified

through this process. The items selected for each study variable were adapted from the measures used by researchers that provided a satisfactory explanation of the variable. Further, the researcher also added several items which are pertinent for measuring the study variables but were lacking justification in the existing literature. The items were also modified to be relevant to the local setting and the situation of the private health care employees in the state of Odisha. The researcher has resorted to mix different items from established scales to develop the questionnaire, as there was hardly any single scale proposed by any researcher that provided comprehensive measurement of the study variables in Indian context. The research instrument consists of a section to elicit socio-demographic information. The questionnaire also contains 133 items covering the five study variables i.e. job dimensions, HR interventions, quality of work life, employee commitment, and turnover intention. The responses of the items were measured on five-point Likert's scale. In this scale one, two, three, four, five depicted strongly disagree, disagree, neutral, agree, and strongly agree respectively.

Independent Variables

The job dimensions consist of six independent variables namely physical work environment, occupational stress, career growth and development, job characteristics, compensation and rewards, and social support. The measures for each variable are elaborated as follows. *Physical work environment* consists of ten items to measure the perceptions regarding the physical work setting. The items of the variable were adapted from several researchers like four items from Lee (2006), two items from Brooks and Anderson (2005), one item from Martel and Dupuis (2006) and the researcher developed three items by identifying the gaps in the literature. *Occupational stress* includes eight items to assess the opinion on occupational stress experienced by the employee. The measures used in several studies were modified to create the items of this variable like two items from Jamal and Baba (1992), two items from Van Laar et al. (2007), one item from McGowan (2001) and the researcher included three items for a better explanation of the variable. *Career growth and development* comprises of eight items that captures the views regarding the career growth and development prospects available in the organisation. The three items of the variable were adapted from the measures of Sturges et al. (2002), two items from Van Laar et al. (2007) and the researcher incorporated three items for a reasonable description of the variable. *Job characteristics* contain nine items to evaluate the nature of the job assigned by the organisation. The six items were adapted

from the scale designed by Morgeson and Humphrey (2006) and the researcher developed three items to fill up the research gaps. *Compensation and rewards* involve eleven items that extracts the views on compensation and reward practices of the organisation. The items of the variable were adapted from several studies like three items from Vandenberghe and Tremblay (2008), two items from Siegrist et al. (2004), two items from De Gieter et al. (2006) and the researcher developed four items that were pertinent in the context of health care employees. *Social support* consists of eleven items to gauge the perception of the support received from superiors, co-workers and family members. The items of the variable were adapted from some extant research scales like five items from Sundin et al. (2007), two items from Ducharme et al. (2007), three items from Canty-Mitchell and Zimet (2000) and the researcher added three items to measure the variable elaborately.

The HR intervention includes six independent variables such as job security, employee welfare, grievance management, teamwork and communication, empowerment and involvement and work life balance. The items in each variable are illustrated as follow. *Job security* comprises of six items to identify the employee perception of job security. The three items of the variable were based on the study of Kinnunen et al. (2000), one item was adopted from Probst (2003), and the researcher added two items for satisfactory estimation of the variable. *Employee welfare* consists of eight items on the presence of welfare measures in the organisations. The researcher developed these measures by including the most common welfare measures prevalent in private health care units. *Grievance management* consists of seven items to reflect the opinion regarding the grievance redressal mechanisms. The four items of the variable were amended from Cooke and Saini (2015) scale and the researcher included three items for extensive exploration of the variable. *Teamwork and communication* include nine items for examining the actions taken by the organisation to promote teamwork and transparent communication system. The seven items of the variable were adapted from the AHRQ (2014) teamwork perceptions questionnaire and the researcher designed two items by identifying the literature gaps. *Empowerment and involvement* has ten items to quantify the extent of empowerment and involvement in the organisation. The scale of Laschinger et al. (2001) was revised to derive six items of the variable and four items formed by the researcher described the involvement aspect of the variable. *Work life balance* comprises of seven items to study the practices prevailing in the organisation to adjust the areas of

work and life. Two items of the variable were adapted from the study of Pryce et al. (2006), two items from the research of Abendroth and Den Dulk (2011) and the researcher has proposed three items to fill up the research gap.

Dependent and Mediator Variables

The *quality of work life* consists of ten items to measures the perception of quality of work life. The source of eight items of the variable was from the significant research of Sirgy et al. (2001), and the researcher included two items for a meticulous analysis of the variable. The *employee commitment* contains nine items to measure the commitment level of the employees. The nine items of the variable were adapted from the scale of Meyer et al. (1993) which is widely used in health care research. The *turnover intention* includes ten items to measure employees' intention to quit the organisation. The items of the variable were adapted from two studies,i.e. four items from Wayne et al. (1997) and six items from Castle et al. (2007).

Control Variables

Control variables are used in research to increase the statistical power of the results, reduce the error terms and exclude alternative explanations of the hypothesised relationships in the study (Becker, 2005; Atinc et al., 2011). The socio-demographic factors have been included as control variables in this study. They include gender, age group, educational level and work experience. The significant association of these variables with the quality of work life and turnover intention is widespread in prior research. Gender disparities exist in the perception of quality of work life and turnover intention (Singhapakdi et al., 2014; Cohen et al., 2015). Age, educational qualification and work experience has a significant connection with QWL (Brunault et al., 2013; Moradi et al., 2014; Gupta and Hyde, 2013) and substantial association with the turnover intention (Van Dam et al., 2012; Osuji et al., 2014; Sun et al., 2013). This research has not tested the effect of the control variables on the hypothesised research model as it been established in previous studies. The studies that have included these factors as control variable are demonstrated below in Table 5.3.

Table 5.3: Seminal Studies Undertaking Socio-Demographic Factors as Control Variable

Authors and Year	***Control Variable***	***Thrust***
Cheung and Tang (2009)	Gender, Age	Study the associations among emotional labour, work-family interference, and quality of work life.

Avgar et al. (2012)	Gender, Age, Education, Work Experience	Investigate the relationship between employee discretion and turnover intention with employee stress as mediator and employee perceptions of staffing adequacy as moderator.
Haar and Brougham (2013)	Gender, Age, Education, Work Experience	Establish a career satisfaction model with a cultural wellbeing factor over and above the established factors of human capital, sociodemographic, individual differences and organisational sponsorship.
Shen et al. (2014)	Gender, Age, Education, Work Experience	Examine the role of quality of working life in the relationship between high-performance work systems, employee in-role performance and extra-role behaviour.
Chang et al. (2015)	Gender, Age, Education, Work Experience	Find out the aspects of professional commitment that can effectively retain nurses.
Amponsah-Tawiah et al. (2016)	Gender, Age, Education	Test model which posits that commuting stress would have direct and indirect effects (through burnout) on employee job satisfaction and turnover intention.

Content Validity

The researcher tested content validity before the approval and usage of the research instrument for data collection. The peer group researchers were assembled to review the items of the questionnaire. The researchers assessed each item to determine the clarity, accuracy and relevance for measuring the variable. The items were examined on a scale of one to four with one, two, three, four depicting not relevant, relevant with major revision, relevant with minor revision, and relevant respectively. The author considered only those items, which had content validity (3 or 4). Further, the items requiring small changes were amended and reworded according to the suggestion of the researchers.

Pilot Study

A significant step before the conducting of primary study is the pilot study. The fundamental goal of the pilot study was to pre-test the survey questionnaire for the suitability, structure and clarity of the questions, terms used, reliability, and duration to complete the questionnaire. The pilot study was conducted in twelve health care units located in the city of Cuttack. The research instrument was distributed among 180 health care employees to gather the opinion of respondents on the study variables. The researcher received 117 valid responses owing to a response rate of sixty five percent. The respondents put forward several ambiguities in the questionnaire, which were fixed consequently. The participants highlighted some items to be confusing, which were

revised for the better understanding of the respondents. Moreover, several items were supposed to be repetitive and similar in meaning, which were deleted from the questionnaire. Further, few items were considered to be important in the context of health care employees but were missing in the questionnaire. These items (I16, I21, I31, I40, I47, I58, I65, I67, I73, I83, I96 and I98) were added for comprehensive measurement of the variables. Thus, the feedback of the participants in the pilot study was incorporated in the final questionnaire that was used for the main study.

5.2 Multivariate Techniques

The collections of statistical techniques, which concurrently analyse various relationships among two or more variables on the data derived from the sample, are termed as multivariate techniques. The main reason for the popularity of multivariate methods is because a sequence of univariate analysis conducted separately for a single study variable can sometimes result in drawing false inferences from a sample of observations. Further, the univariate analysis also does not take into account the presence of inter-dependence or correlation among the variables. Hair et al. (2014:4) defined multivariate techniques as "all statistical techniques that simultaneously analyse multiple measurements on individuals or objects under investigation". According to Kothari (2004:315), "multivariate techniques are used in analysing social, psychological and economic data, especially when the variables have high correlations, and the usage of rigorous probabilistic models is not possible". In applied and behavioural research, these techniques empirically analyse data to get realistic results and help in decision-making. The multivariate methods are used to simplify massive raw data into a smaller number of composite scores, which reflects accurate information. Thus, the multivariate statistical technique is the best data analysis strategy to make probability statements based on multiple measurements of the sample. Further, it also expands the researcher's analytical ability and statistical efficiency. The multivariate techniques have two elementary methods i.e. dependence and interdependence methods. The dependence method makes a distinction between dependent and independent variables and the independent variables forecasts the dependent variables. An interdependence technique does not differentiate the variables and depicts the relationship of the variables with each other. This research considers several multivariate techniques to quantify, validate and bring out empirical

results from the data collected. The following sections have briefly discussed the techniques utilised for the purpose of the study and is segmented into five sub-sections.

5.2.1 Descriptive Statistics

The raw data collected in a study requires an elementary transformation to reveal the fundamental characteristics of the data; this is called descriptive statistics. About description of data lays the foundation for later analysis and interpretation of collected data. "Descriptive statistics constitutes a summarization of the data where a large number of observed values are mathematically converted to a few numbers" (Given, 2008: 209). The simplest ways to categorise descriptive statistics are distribution, central tendency, and dispersion. "The distribution is set of data organised by summarising the number of times a particular value of a variable occurs" (Zikmund et al., 2010: 413). The researcher can group the values denoted by variables to form categories and suitably detect the frequencies in the dataset. The frequency distribution is usually represented using graphical tools such as such as histograms, bar charts, and scatter plots.

The measures of central tendency depict the score around which the values of a variable have an affinity to collect together. The score reflects the characteristics of the whole dataset. The central tendency involves three most popular estimates namely, mean median and mode. According to Kothari (2004:132), "the fundamental measure of central tendency is the mean which is defined as the value computed by dividing the sum of the values of given items in a series by the total number of items". It summarises the essential features of a series and enables to compare the data with others. It is a comparatively stable among all measure of central tendency and used for further statistical calculations. "The mean has some limitations i.e. it is affected by high values of the item; its value may not match with the actual value of any item in the data set, and often leads to wrong interpretation, particularly when the item scores have a greater deviation from the average" (Kothari, 2004:132). The median is another measure of central tendency. "Itis calculated by arranging all the items of the series in ascending or descending order of magnitude, and the value of the middle item of the series is taken as the median. This arrangement divides the series into two halves; the first half contains all items that are less than median, whereas the other half includes all items that have values higher than the median" (Kothari, 2004:132). It is a positional average and is used only in the context of qualitative phenomena. The median is not frequently used in descriptive statistics and

cannot be used when the researcher needs to assign relative importance or weights to items in a series. The mode is another estimate of the central tendency, which represents the value in a series that occurs most often. Item of a series has maximum concentration around the mode. It is a positional average and is not affected by the high values of items. The mode also has certain limitations like, it cannot be determined in the case of a series which has two values of mode. As a whole, the measures of central tendency optimally denote a series using a single score and certainly do not divulge the entire characteristics of the study variables. The measures of dispersion fulfil the limitations of mean median and mode.

The measures of dispersion provide the spread of the item in the series around the actual value of average. The vital measures of dispersion used for analysis are range and standard deviation. "The range is the simplest possible measure of dispersion and is defined as the difference between the values of the extreme items of a series (highest value of an item in a series - lowest value of an item in a series)" (Kothari, 2004: 134). The range provides a quick overview about the variability of the data. The range has several drawbacks; it is never stable as it is centred on only two items of the variable and is affected by fluctuations of sampling. "Standard deviation (δ)is the most widely used measure of dispersion. It is derived by computing the square root of the average sum of the squares of deviations. The deviation for each item is calculated as the difference between the item value and mean of the series" (Kothari, 2004: 134). This deviation may be positive or negative so, the square of this deviation is taken to obtain a positive value. The squared deviations of each item in the series are summed up to generate the Sum of Squares. Further, the average sum of squares is derived by dividing the sum of squares by the number of item in the series. The average sum of squares is also known as variance. The square root of the variance gives the value of standard deviation. Standard deviation is less affected by fluctuations of sampling and amenable to mathematical manipulation. Therefore, it is a very common estimate of the scatter of the items in a series and mostly used for estimation and testing of hypotheses. Descriptive statistics is used in this study to describe the characteristics of the sample data. Table 5.4 depicts some significant research, which has used descriptive statistics for deriving the results of the study.

Table 5.4: Relevant Studies Undertaking Descriptive Statistics

Author and Year	***Thrust of the Study***
Desselle (2005)	Identify various work-life attitudes of Certified Pharmacy Technicians and determine whether these attitudes differed by

	practice setting and personal characteristics of the respondents.
Khani et al. (2008)	Explore how nurses rate the quality of their work life in an Iranian state.
Islam and Siengthai (2009)	Study the influence of workers quality of work life (QWL)on job satisfaction and organisational performance.
Pisheh (2012)	Investigate the relationship between quality of work life and job stress of Iran public employees.
Narehan et al. (2014)	Examine the relationship between quality of work life programs and quality of life among employees at multinational companies in Malaysia and how both influence employee productivity.
Bragard et al. (2015)	Analyse the associations between recruitment and retention factors and QWL in two rural emergency departments.

5.2.2 Exploratory Factor Analysis

Hair et al. (2014:92) stated that "factor analysis is an interdependence technique whose primary purpose is to define the underlying structure among the variables in the analysis". It statistically recognises a few factors from a large number of items. The factors are usually latent constructs, representing a cluster of the items instead of being directly measured. Exploratory factor analysis is used when there is uncertainty about how many factors may exist in a set of variables. "The major function of this technique is to summarise the information contained in a large number of original items into a compact set of new factors with minimum loss of information" (Hair et al., 2014:94).

The exploratory factor analysis starts with principal component analysis that extracts a set of factors that has least correlations with each other. The commonality score represents the proportion of common variance explained by the items. Eigenvaluesshowcase the variance explained by each factor. Zikmund et al. (2010:594) have suggested that "the rule of thumb in factor solution is to generate the factors that depict the eigenvalues greater than 1.0 because a factor with an eigenvalue of 1.0 has the same total variance as a single item". The factor loading indicates the correlation of the items with the factor. The initial factor solution undergoes rotation to create new reference axes for a given set of variables and simplifies factor results by producing apparent patterns of loadings. The most common type of factor rotation is a process called varimax. Orthogonal rotation is used if the factors are not correlated else, an oblique rotation is used. The name of the latent construct is based on the interpretation of the pattern of loadings and the content of the variables.

A researcher can stop with factor analysis or proceed with data reduction methods based on the objective of the study. According to Hair et al. (2014: 139) "when the objective is to identify logical combinations of variables and better understand the

interrelationships among variables, then factor interpretation is sufficient. However, data reduction techniques are used if the objective is to identify the appropriate variables for subsequent application to other statistical methods". There are several data reduction options in factor analysis like choosing a single item that has the highest factor loading, calculating a summated scale, and calculating factor scores for each factor. The best of the three data reduction methods is possibly a summated scale that is valid and reliable. Hair et al. (2014:100) state that the sample size should be more than 100 to conduct exploratory factor analysis and the ideal ratio of the number of observation with the number of items is 5:1. The exploratory factor analysis has a difference of opinion on the subjective aspects, i.e., the number of factors to be extracted; the use of rotation technique, the significant value of factor loadings and values for reliability. Table 5.5 shows few significant studies that have adopted exploratory factor analysis to draw inferences in the study.

Table 5.5: Relevant Studies Undertaking Exploratory Factor Analysis

Author and Year	***Thrust of the Study***
Laschinger et al. (2000)	Examine factors influencing their work life quality in hospital settings.
Hoonakker et al. (2004)	Explore the role of the job characteristics affecting QWL and turnover.
Huang et al.(2007)	Examine the impact of quality of work life on career and organisational commitment and how commitment affects turnover intention.
Gurses et al. (2009)	Study the impact of performance obstacles on intensive care nurses workload, quality and safety of care, and quality of working life.
Sinha (2012)	Explore the factors of quality of working life experiences among employees holding middle managerial positions in various organisations.
Sirisawasd et al. (2014)	Assess the validity and reliability of the Thai work-related quality of life Scale-2, and to examine the tool's accuracy vis-à-vis nursing in Thailand.
Dehaghi et al. (2015)	Discover the association between quality of work life of nurse managers and their participation in implementing knowledge management.
Hsu (2016)	Evaluate the concepts, constructs, and units of the working life of professional nurses.

5.2.3 Multiple Regression Analysis

"Regression analysis is a statistical procedure to determine the relationship between one or more independent and dependent variables. In the case of one independent variable predicting the dependent variable, it is called as simple regression, whereas when two or

more independent variables predict the dependent variable, it is called as multiple regression" (Hair et al., 2014:158). Although simple regression and correlation are mathematically equivalent in most respects, regression is a dependence technique whereas correlation is an interdependence technique. Multiple regression is the most extensively used multivariate technique for prediction and explanation. "Prediction involves the extent to which the regression model can predict the dependent variable. Explanation examines the regression coefficients (their magnitude, sign, and statistical significance) for each independent variable and attempts to develop a substantive or theoretical reason for the effects of the independent variables on the dependent/predicted variable" (Hair et al., 2014:165). It fulfils two objectives in a study. First, optimise the forecasting strength of all the independent variables and second, compare several sets of independent variables to establish the predictive power of the individual set.

Multiple regression analysis provides a weight to each independent variable to know relative prediction power of a set of independent variables on the dependent variable. The set of weighted independent variables forms the regression model, a linear combination of the independent variables that best predicts the dependent variable. The regression models pose a challenge for the researcher in understanding how an independent variable predicts the dependent variable, by taking the effect of other independent variables into account. "The regression coefficient of an independent variable is affected by the regression coefficient of the other independent variables when they are related to each other. Regression weights are unaffected by each other when the independent variables are not associated with each other" (Zikmund et al., 2010:585). The correlation among the independent variables is called multicollinearity that creates complications in the interpretative process of the data. The individual parameter estimates are difficult to interpret when multicollinearity is too high.

In multiple regression analysis, the sample size has a strong influence on the prediction power of the model. Hence, the researcher needs to confirm the statistical significance of the variables with adequate practical significance. Hair et al. (2014) suggest 5:1 is the minimum ratio of observations to available. This means that five observations should be taken for each independent variable in the model. However, it is preferable to take a ratio of 15:1 or 20:1. This ratio increases to a ratio of 50:1 in the case of stepwise estimation because this technique chooses only the strongest relationships between variables and has an inclination to become sample-specific. Further, the generalisability of the model can be improved, and the problems with the sample size can

be reduced by maximising the degree of freedom. Table 5.6 illustrates some significant research that has used multiple regression analysis for interpreting the data.

Table 5.6: Relevant Studies Undertaking Multiple Regression Analysis

Author and Year	Thrust of the Study
Krueger et al. (2002)	Identify organisation specific predictors of quality of work life within a health care system that consisted of six independent health care organisations.
Chan and Wyatt (2007)	Examine the quality of work life regarding how work life satisfies eight basic needs of employees and how the satisfaction of individual need in their work life affects employees' job satisfaction, affective commitment, turnover intention, life satisfaction and general well-being.
Koonmee et al. (2010)	Investigate the association between institutionalisation of ethics, quality of work life (QWL), and employee job-related outcomes in the Thai workplace.
Mosadeghrad et al. (2011)	Understand the relationships between job stress and QWL of employees, and their impact on turnover intention at Isfahan hospitals, Iran.
Lee et al. (2013)	Explore the relationship between quality of work life and nurses' intention to leave their organisation.
Nowrouzi et al. (2015)	Examine the quality of work life of registered nurses working in obstetrics hospitals in Ontario and explore demographic and occupational factors related to nurses' quality of work life.
Mohammadi-Bolbanabad et al. (2016)	Investigate the relationship between quality of work life (QWL) and quality of patient care.

5.2.4 Structural Equation Modelling (SEM)

The multivariate techniques discussed above have one common limitation i.e. each technique can analyse only one relationship at a time. SEM is used to test the overall theory of research considering all possible information. "It is an extension of several multivariate techniques, most notably factor analysis and multiple regression analysis. It is particularly useful in testing theories that contain multiple equations involving dependence relationships" (Hair et al., 2014:542). The theory-based approach to SEM is a distinct strength of this technique that necessitates the exact specification of the theoretical model, precise testing of the theory, and yields a thorough understanding of the data set. "The three primary characteristics that distinguish SEM from other techniques are; estimation of multiple and interrelated dependence relationships, representation of unobserved concepts in these relationships and accounting for measurement error in the estimation process and defining a model to explain the entire set of relationships" (Hair et al., 2014: 547). The main benefit of SEM is the ability to include latent construct, which

enables the representation of hypothesised and unobserved concept with the help of observed variables or indicators.

SEM analysis is conducted in two parts: the measurement model and the structural model. "The measurement model is concerned with the relations between observed and latent variables and provides a test for the reliability and validity of the observed variables employed to measure the latent variables" (Ho, 2006: 283). In this model, the set of indicators for a construct acts together to explain it. The validity of the measurement model is established through convergent validity and discriminant validity. Convergent validity concerns with the degree to which the indicators of a specific construct share a large proportion of variance in common. It is determined by the values of average variance extracted (AVE) and construct reliability (CR). The discriminant validity is the degree to which a particular construct is distinct from other constructs. It is determined by comparing the shared variances between construct with the square root AVE of the specific construct. The score of AVE and CR is calculated as follows:

$$CR = \frac{\sum_{i=1}^{n} L_i^{\,2}}{n}$$

$$AVE = \frac{(\sum_{i=1}^{n} L_i)^2}{(\sum_{i=1}^{n} L_i)^2 + (\sum_{i=1}^{n} e_i)}$$

Where 'L' is the standardised factor loadings, 'n' is the total number of items in the construct, 'i' is the item, and 'e' is the error variance of the item.

The structural model is a flexible, comprehensive model that specifies the pattern of relationships among independent and dependent variables, either observed or latent. In this model, constructs are connected to each other in correlational and dependence relationships" (Ho, 2006: 284). SEM accurately predicts the overall model rather than any single relationship. Therefore, the overall model fit is determined before examining any specific relationships among the study variables and on the basis of the goodness-of-fit measures the whole model can be "accepted or rejected".

SEM estimates a series of relationship to provide sufficient explanation of the hypothesised research model with the help of input data. According to Ho (2006:284), "model fit is determined when the observed covariance matrix matches with the estimated covariance matrix of the proposed model". Goodness-of-fit measures are the extent to

which the actual or observed covariance input matrix corresponds with the proposed model. Goodness-of-fit measures are of three types, absolute fit measures, incremental fit measures, and parsimonious fit measures. "Absolute fit indices are a direct measure of the degree to which the research model reproduces the observed data. The chi-square (χ^2) statistics most fundamental absolute fit index and depicts the difference between observed and expected covariance matrices. The values closer to zero denotes a better fit as well as smaller variance between both matrices. Goodness-of-fit index (GFI) measures how much better the model fits compared with no model at all. It is a non-statistical measure ranging from 0 to 1 in which with higher values indicate better fit.Root mean square error of approximation (RMSEA) is an extensively used measure that represents how well a model fits a population, not just a sample used for estimation. Its values range from 0 to 1, and lower values indicate a better fit. Incremental fit indices assess how well the estimated model fits in comparison with some alternative baseline model. Normed fit index (NFI) is one of the unique incremental fit indices that signify the ratio of the difference in the χ^2 value for the fitted model and a null model divided by the χ^2 value for the null model. Its value ranges between 0 and 1, and a model with perfect fit would produce an NFI of 1. Tucker Lewis index (TLI) is a comparison of the normed chi-square values for the null and specified the model, which to some degree takes into account model complexity. However, the TLI is not normed, and thus its values can fall below 1 or above 0 with higher value suggesting a better fit. Comparative fit index (CFI) is an improved version NFI that is normed with values range between 0 and 1 and higher values indicating better fit. The parsimony fit indices provide information about which model among a set of competing models is best, comparing the fit of the model with its complexity. Parsimonious normed fit index (PNFI) takes into account the number of degrees of freedom used to achieve a level of fit. It favours less complex models, and higher values represent better fit. Adjusted goodness-of-fit index (AGFI) takes into account differing degrees of model complexity by adjusting GFI by a ratio of the degrees of freedom used in a model to the total degrees of freedom available. It penalises complex models and favours those with a minimum number of free paths" (Hair et al., 2014:578). The parameter estimates of variables are examined only when the model fit is satisfactory. The unstandardized parameter estimates contain the scaling information of variables and can only be interpreted concerning the scales of the variables. The standardised parameter estimates are transformations of unstandardized estimates that removes scale and can be used for informal comparisons of parameters throughout the model.

According to Hair et al. (2014), the researcher can adopt several strategies in conducting SEM like confirmatory modelling strategy, competing models strategy and model development strategy. Confirmatory modelling strategy specifies a basic model framework assess how well the model fits the data. Competing models strategy compares the basic model with alternative models that represent highly plausible, hypothesised structural relationships. Model development strategy improves the basic model through modifications of the structural or measurement models. SEM is used when the sample size is large (N > 200) and depends on the model complexity, the estimation method and the distributional characteristics of observed variables (Kline, 2005). Table 5.7 illustrates some pertinent studies which have adopted confirmatory factor analysis and structural equation modelling for deriving the results of the research.

Table 5.7: Applications of Confirmatory Factor Analysis and Structural Equation Modelling

Author and Year	***Thrust of the Study***
Lambert (2000)	Estimate a model that links work-life benefits to organisational citizenship behaviour directly, through obligations incurred because of the social exchange, and indirectly, through enhanced perceptions of organisational support.
Rosser (2004)	Understand of how demographic variables, professional and institutional work life issues, and satisfaction interact to explain faculty intention to leave at a national level.
Gaither et al. (2008)	Test a direct effects model of job stress that examines the characteristics of the organisational environment, extra-role factors, job stress, individual factors and the work-related psychological outcomes of job satisfaction, organisational commitment, and job turnover intention.
Ahmadi et al. (2011)	Investigate the role of managerial coaching on the quality of work life and employee development.
Gillet et al. (2013)	Examine psychological mechanisms that link transformational leadership behaviours to nurses' quality of work life and the relationship between nurses' quality of work life and their work engagement.
Kim and Ryu (2015)	Construct and test a model of quality of work life for clinical nurses based on Peterson and Wilson's Culture-Work-Health model.
Salimi and Saeidian (2015)	Determine the causal relationships between quality of work life, psychological empowerment and employees' productivity.

5.2.5 Mediation Analysis

Mediation analysis was carried out to assess the mediating effect of one variable in between the relationship of two other variables. The technique proposed by Baron and Kenny's (1986) is the most frequently used technique for testing the mediation hypothesis

in social science research (Preacher and Hayes, 2004). The steps of the procedure are stated below:

a) The independent and dependent variable must be significantly related,
b) The independent and mediating variable must be significantly related,
c) The mediator and dependent variable must be significantly related and
d) The independent variable must have no effect on the dependent variable when the mediator is held constant (full mediation) or should become significantly smaller (partial mediation).

In the literature, several methods are used to assess the significance of mediation effects among the variables. One of the methods is Sobel's Z-test, which is frequently used and known to create the most reliable results in the case of regression analysis (Simsek, 2007). The formula for Sobel Z test is as follows:

$$Z = \frac{A * B}{\sqrt{(B^2 * {s_A}^2 + A^2 * {S_B}^2)}}$$

Where A is the unstandardized regression coefficient for the association between the independent variable and the mediator, S_A is standard error of 'A', B is the unstandardized coefficient for the association between the mediator and the dependent variable (when the independent variable is also a predictor of the dependent variable), S_B is the standard error of 'B'. Further, Jose (2013) also developed a macro for the users of Microsoft Excel called MedGraph-3 program, which can be utilised to conduct Sobel's Z-test. Furthermore, Preacher and Hayes (2004) also suggested bootstrap confidence interval to test the significance of mediation hypotheses. In this study, mediation is used to test the mediating effect of employee commitment in between the relationship of the quality of work life and the turnover intention of health care employees. Table 5.8 illustrates some pertinent studies, which have adopted confirmatory factor analysis and structural equation modelling for deriving the results of the research.

Table 5.8: Application of Mediation Analysis in Relevant Studies

Author and Year	*Thrust of the Study*
Park and Kim (2009)	Examine whether and how different types of organisational culture are associated with job satisfaction and turnover intention among hospital nurses in Korea
Poon (2012)	Address the unexamined issue of how and when distributive

	justice and procedural justice interact to predict turnover intention using a mediation–moderation framework
Panaccio et al. (2014)	Study the mediating role of affective and continuance commitment in the relationship between pay satisfaction and voluntary turnover
Demirtas and Akdogan (2015)	Investigate a mediated model of ethical leadership on ethical climate, turnover intention, and affective commitment
Huang et al. (2016)	Assess the mediating role of job satisfaction in the relationship between safety climate and the two human resource outcomes (employee engagement and turnover rate)

Thus, the chapter outlines the several research methods that have been implemented for conducting the research work in a systematic and logical way. The primary data has been collected from employees working in private health care units in Odisha. Convenience sampling is adopted to select the sample for the study. The subsequent chapters of the thesis have discussed the analysis of data, interpretation of the results and relevant findings in detail.

Chapter 6

Data Analysis, Interpretation and Outcomes

This chapter presents the quantitative results derived from the exploration of primary data collected during the field study through opinion survey. First, this chapter provides an overview of the sample characteristics and the reliability of the research instrument. Consequently, the preliminary analysis of data is conducted by using the descriptive statistics, correlation and regression analysis. Then, the hypothesised research model is validated by using statistical tools such as exploratory factor analysis and structural equation modelling. The analysis of data has been carried by using IBM SPSS and AMOS version 20. Subsequently, the results derived through testing of hypotheses are summarised and discussed in the context of the contemporary literature.

6.1 Research Participants and Instrument

The objectives of the study have been empirically investigated based on the primary data gathered with the help of a structured questionnaire from the private health care units of Odisha. A total of 800 questionnaires were distributed among the respondents of the research units (nurses, pharmacist, radiology technician and laboratory technician) and 609 usable questionnaires were incorporated for extracting the results of the study. The remaining questionnaires were excluded due to non-responsiveness of the respondents and the incompleteness of the data. Thus, the response rate of the study was 76 per cent. The high response rate suggests that there was minimal sampling bias in the research.

6.1.1 Demographic Characteristic of the Sample

The sample constitutes of about 37.93% male and 62.06% female participants, showcasing a high number of women employees in health care units. The age group of the respondents were between 20-30 years (56.32%), 31-40 years (29.22%), 41-50 years (9.19%) and 51-60 years (5.25%). Thus, the majority of private health care workforce is young (below 40 years). The participants had the educational qualification of matric (10.34%), intermediate/diploma (54.84%), graduation (32.51%) and post-graduation

(2.29%). The profession of the participants were nurses (54.02%), pharmacist (13.30%), radiology technician (10.34%) and laboratory technician (22.33%). The work experience of the respondents was 0-5 years (51.72%), 6-10 years (22.66%), 11-15 years (15.76%), 16-20 years (7.06%), and 21 years- above (2.79%). Thus, the demographic characteristics of the sample (table 6.1) reveal that the majority of participants were female, aged between 20 to 30 years, held the educational qualification of intermediate/diploma, were employed as nurses and had a work experience of 0 to 5 years. The demographic characteristics of the sample have been treated as control variables. However, the research does not test the effect of these control variables on the hypothesised model, as its relationship with the study variables has been established in previous studies.

Table 6.1: Demographic Characteristic of the Sample

Variable	***Scale***	***Number***	***Percentage***
Gender	Male	231	37.93
	Female	378	62.06
Age	20-30	343	56.32
	31-40	178	29.22
	41-50	56	9.19
	51-60	32	5.25
Educational Qualification	Matric	63	10.34
	Intermediate/ Diploma	334	54.84
	Graduation	198	32.51
	Post-Graduation	14	2.29
Profession	Nurse	329	54.02
	Pharmacist	81	13.30
	Radiology Technician	63	10.34
	Laboratory Technician	136	22.33
Experience	00-05	315	51.72
	06-10	138	22.66
	11-15	96	15.76
	16-20	43	7.06
	21-above	17	2.79

6.1.2 Reliability of the Research Instrument

The study has used a structured questionnaire to obtain empirical data on the impact of quality of work life of health care employees on their turnover intention. The procedure for designing the research instrument has been elaborated extensively in Chapter 5. This section reveals the reliability coefficients of the items used to measure the study variables. The research instrument consisted of 133 questions covering the variables of job dimensions, human resource interventions, quality of work life, employee commitment,

and turnover intention. The job dimensions include physical work environment (10 items), occupational stress (8 items), career growth and development (8 items), job characteristics (9 items), compensation and rewards (11 items), and social support (11 items). The human resource interventions include job security (6 items), employee welfare (8 items), grievance management (7 items), teamwork and communication (9 items), empowerment and involvement (10 items) and work life balance (7 items). The variables of quality of work life, employee commitment and turnover intention consist of 10, 9 and 10 items respectively. The reliability coefficients of variables range from .706 to .853. As per the guidelines of Nunnally (1978) to interpret the values of Cronbach α, a score greater than .7 is acceptable and proves the reliability of the scale items. Thus, the reliability scores presented in table 6.2 substantiates the consistency of the items derived for measuring the variables of the study.

Table 6.2: Reliability of the Study Variables

Variables	***Items***	***Cronbach α***
Physical Work Environment (PWE)	10	.795
Occupational Stress (OS)	8	.706
Career Growth and Development (CGD)	8	.732
Job Characteristics (JC)	9	.814
Compensation and Rewards (CR)	11	.829
Social Support (SS)	11	.816
Job Security (JS)	6	.836
Employee Welfare (EW)	8	.756
Grievance Management (GM)	7	.785
Teamwork and Communication (TC)	9	.853
Empowerment and Involvement (EI)	10	.829
Work-Life Balance (WLB)	7	.767
Quality of Work Life (QWL)	10	.836
Employee Commitment (EC)	9	.735
Turnover Intention (TI)	10	.852

6.1.3 Handling Common Method Bias

The research adopted the procedural and statistical remedies suggested by Podsakoff et al. (2003) to mitigate the errors relating to common method bias. The study has collected data from a variety of health care units and different categories of employees. Further, the confidentiality of the participant's responses was ensured to avoid desirability bias. Moreover, the items of the questionnaire were subjected to Harman's single-factor test by entering all the items into an exploratory factor analysis with a forced one-factor solution. The results showed that the forced single general factor accounted for 18 percent variance.

The single general factor did not explain a majority of the variance. Therefore, there is less likelihood that common method bias poses a problem in this study.

6.2 Preliminary Analysis

An initial examination of data is conducted by using the procedure of descriptive statistics, correlation and regression analysis. These statistical analyses was carried out to check the multicollinearity of study items and to determine the power of individual items for predicting quality of work life (QWL). The descriptive statistics offers a comprehensive investigation of the data properties by providing the values of mean and standard deviation of all the items of a particular study variable. The correlation analysis reveals the pattern of association among the elements of the specific study variables. Lastly, individual regression analysis is carried out by including the parameters of factors under job dimensions and HR interventions as independent variables and QWL as the dependent variable. The regression analysis is conducted to ascertain the power of specific items of the study variables to forecast QWL of health care employees.

6.2.1 Physical Work Environment (PWE)

Table 6.3 presents the descriptive statistics and correlations among QWL and the parameters of PWE. The item means reflect a range of values from 2.61 to 3.21. The item with the highest mean is the 'workplace is free from excessive noise' (I5). This indicates that health care employees believed that their workplaces have moderate noise levels. The item with the lowest mean is 'clean and healthy work setting' (I9). This value suggests that work settings of health care employees have low levels of cleanliness. Inspection of the standard deviation of PWE items reveals that all the values are around or little below 1. Pearson's correlation coefficient determines the strength and direction of a relationship between the two parameters. The correlation between the items of PWE varies from .082 to .654, suggesting moderate effects. The item 'able to personalise your workspace' (I4) did not significantly relate with 'adequate patient care supplies and equipment' (I6), although it is positively related to all other PWE items. Further, QWL is significantly related to all the elements of PWE. Specifically, QWL is strongly correlated with 'adequate protection against workplace hazards' (I8) with a value of .738. Although QWL has moderate correlations with I6, I9, and I1, it has weak correlations with I2, I3, I4, I5, and I7.

Table 6.3: Means, Standard Deviations and Correlations (PWE)

Items	Mean	SD	QWL	I1	I2	I3	I4	I5	I6	I7	I8	I9
QWL	2.76	.935	1									
I1	2.91	.973	.331**	1								
I2	3.15	.980	.264**	.425**	1							
I3	2.98	.956	.235**	.501**	.185**	1						
I4	2.86	.983	.215**	.369**	.337**	.208**	1					
I5	3.21	.965	.270**	.478**	.347**	.168**	.150**	1				
I6	2.65	.902	.684**	.202**	.187**	.150**	.056	.168**	1			
I7	3.09	.963	.185**	.458**	.251**	.355**	.190**	.297**	.054	1		
I8	2.66	.885	.738**	.225**	.203**	.149**	.117**	.187**	.657**	.082*	1	
I9	2.61	.874	.617**	.201**	.166**	.166**	.090*	.165**	.539**	.090*	.578**	1

** p<.01, *p<.05

Multiple regression analysis was conducted to identify the parameters of PWE that significantly predict QWL of health care employees. The model summary shown in Table 6.4, provides the value of R^2 as .674, which implies that the parameters of PWE explain 67 per cent of the observed variability in QWL. The remaining 33 per cent, which has not been explained by the items, may be related to other variables, which are not depicted in this model. The adjusted R^2 is a modified measure and has a value of .670 (close to the value of R^2), thus indicating the generalisability of the model. The F value (F = 207.144, p <.001) highlights that the variance explained by the predictor items are highly significant. The regression coefficients reveal that I1, I4, I6, I7, I8, and I9 are significant predictors of QWL. The highest beta coefficient is of item I8 (.399), which depicts that 'adequate protection against workplace hazards' has the strongest influence on QWL of health care employees. The t-value is the measures of whether the predictor is making a significant contribution to the model. All the t-values associated with the beta coefficients are significant which explains the substantial contribution of the PWE parameters towards better QWL. The model excludes I2, I3, and I5 as they do not predict QWL considerably. The collinearity statistics includes the tolerance and variance inflation factor (VIF) that depict the degree of interrelation among independent variables and the inflation of variances in the regression coefficients due to interrelation among independent variables respectively (Paré and Tremblay, 2007). The tolerance index should be greater than .2,and the VIF index should be less than 10 (Field, 2009). The tolerance index ranges from .493 to .859, and the VIF index ranges from 1.164 to 2.030, which reveals the absence of multicollinearity among PWE items.

Table 6.4: Model Summary, ANOVA, Coefficients and Collinearity Statistics (PWE)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.379	.111		-3.410	.001		
I8	.421	.035	.399	12.016	.000	.493	2.030
I6	.299	.033	.289	9.002	.000	.526	1.901
I9	.215	.032	.201	6.779	.000	.618	1.619
I1	.076	.027	.079	2.782	.006	.675	1.481
I4	.088	.024	.092	3.678	.000	.859	1.164
I7	.063	.025	.065	2.492	.013	.788	1.269
$R = .821$, $R^2 = .674$, Adjusted $R^2 = .670$, Std. Error of Estimate = .536, F = 207.144, Sig. = .000							
Dependent variable: QWL; Independent variables: (Constant), I8, I6, I9, I1, I4, I7; Excluded Items: I2, I3, I5							

6.2.2 Occupational Stress (OS)

Table 6.5: Means, Standard Deviations and Correlations (OS)

Items	Mean	SD	QWL	I11	I12	I13	I14	I15	I16	I17
QWL	2.84	.807	1							
I11	4.27	.722	-.600**	1						
I12	3.86	.990	-.267**	.078	1					
I13	3.94	.962	-.277**	.114**	.251**	1				
I14	4.00	1.040	-.244**	.038	.349**	.582**	1			
I15	3.92	.887	-.274**	.073	.436**	.507**	.655**	1		
I16	4.20	.743	-.665**	.599**	.068	.108**	.020	.042	1	
I17	4.24	.701	-.610**	.447**	.131**	.097*	.066	.104**	.565**	1

** p<.01, *p<.05

Table 6.5 provides the descriptive statistics and correlations among QWL and the parameters of OS. The item with the highest mean is the 'feel high job pressure' (I11) with a score of 4.27. This value indicates that health care employees experience high job pressure. The parameter with the lowest mean is 'feel nervous and strained as a result of the job' (I12) with a score of 3.86. This value suggests that health care employees felt moderately nervous and strained in the job. Assessment of the standard deviation of OS elements reveals that all the scores are around or below 1 except 'unable to manage the workload' (I14). Some parameters of OS do not correlate significantly such as I11 with I12, I14, and I15; I16 with I12, I14, and I15, and I14 with I17. The correlation between all other items of OS fluctuates from .097 to .655, suggesting moderate effects. Further, QWL has significant but negative relationship with all the elements of OS. Although

QWL has moderate correlations with I11, I16, and I17, it has weak correlations with I12, I13, I14, and I15.

The elements of OS that significantly predict QWL of health care employees were identified using multiple regression. Table 6.6, depicts the model summary that presents the value of R^2 as .629, which denotes that the elements of OS explain 62 percent of the observed variability in QWL. The value of adjusted R^2 is .625 (close to the value of R^2), which shows the generalisability of the model. The F value ($F = 170.168$, $p < .001$) describes the significance of the variance explained by the OS parameters. The regression coefficients disclose that the items I11, I12, I13, I15, I16, and I17 significantly predict QWL. The highest beta coefficient is of I16 (-.342), which depicts that 'feel worn out and weary after work' has a robust influence on QWL of health care employees. All the t-values associated with the beta coefficients are significant that explains the substantial contribution of the OS parameters towards better QWL. The model excludes I14 as it does not considerably predict QWL. The tolerance and the VIF index are highly satisfactory with scores ranging between .528 to .801 and 1.248 to 1.894 respectively.

Table 6.6: Model Summary, ANOVA, Coefficients and Collinearity Statistics (OS)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	7.979	.168		47.377	.000		
I16	-.372	.037	-.342	-10.021	.000	.528	1.894
I17	-.311	.035	-.270	-8.797	.000	.653	1.531
I15	-.102	.028	-.113	-3.630	.000	.639	1.566
I11	-.274	.035	-.246	-7.800	.000	.622	1.608
I12	-.094	.023	-.115	-4.144	.000	.801	1.248
I13	-.084	.024	-.100	-3.454	.001	.734	1.363
$R = .796$, $R^2 = .629$, Adjusted $R^2 = .625$, Std. Error of Estimate = .494, F = 170.168, Sig. = .000							
Dependent variable: QWL; Independent variables: (Constant), I16, I17, I15, I11, I12, I13 ; Excluded Items: I14							

6.2.3 Career Growth and Development (CGD)

Table 6.7 provides the descriptive statistics and correlations among QWL and the elements of CGD. The means of item reveal a range of scores from 2.69 to 3.30. The item with the highest mean is 'attend job-related training programmes' (I25). This indicates that health care employees attend a moderate number of training in their organisation. The parameter with the lowest mean is 'provision for career counselling and assistance' (I20). This suggests that health care employees have limited facilities for career counselling and

assistance. Assessment of the standard deviation of CGD elements reveals that all the scores are below 1. Some parameters of CGD do not correlate significantly such as I19 with I20, I21, I22, and I23; I24 with I20, I21, I22, and I23; and I25 with I20, I21, I22, and I23. The correlation between all other items of CGD fluctuates from .292 to .877. Further, QWL has significant and positive relationship with I19, I22, I23, I24, and I25, but has an insignificant relationship with I20, and I21.

Table 6.7: Means, Standard Deviations and Correlations (CGD)

Items	Mean	SD	QWL	I19	I20	I21	I22	I23	I24	I25
QWL	3.16	.827	1							
I19	3.20	.806	.744**	1						
I20	2.69	.927	.007	-.030	1					
I21	2.90	.972	.063	-.014	.792**	1				
I22	2.94	.966	.119**	-.009	.331**	.426**	1			
I23	3.06	.965	.148**	.015	.292**	.363**	.877**	1		
I24	3.25	.785	.735**	.623**	-.044	-.004	.036	.026	1	
I25	3.30	.786	.636**	.497**	-.057	-.008	.051	.072	.549**	1

** p<.01, *p<.05

Table 6.8: Model Summary, ANOVA, Coefficients and Collinearity Statistics (CGD)

Model	Unstandardised Coefficients		Standardised Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.490	.102		-4.792	.000		
I19	.419	.029	.408	14.552	.000	.577	1.732
I24	.370	.031	.351	12.059	.000	.536	1.866
I25	.244	.028	.232	8.824	.000	.656	1.525
I23	.099	.018	.115	5.404	.000	.994	1.006
R = .852, R^2 = .726, Adjusted R^2 = .724, Std. Error of Estimate = .435, F = 400.111, Sig. = .000							
Dependent variable: QWL; Independent variables: (Constant), I19, I24, I25, I23 ; Excluded Items: I20, I21, I22							

The elements of CGD that significantly influence QWL of health care employees were analysed using multiple regression. Table 6.8, depicts the model summary that presents the value of R^2 as .726, which denotes that the elements of CGD describe 72 percent of the observed variability in QWL. The value of adjusted R^2 is .724 (close to the value of R^2), which shows the generalisability of the model. The F value (F = 400.111, p <.001) describes the significance of the variance explained by the CGD parameters. The regression coefficients disclose that the items I19, I23, I24, and I25 significantly influence QWL. The highest beta coefficient is of I19 (.408), which depicts that 'opportunities for career advancement' has a robust impact on QWL of health care employees. All the t-

values associated with the beta coefficients are significant that explains the substantial contribution of the CGD parameters towards better QWL. The model excludes I20, I21, and I22 as they do not have a considerable effect on QWL. The tolerance and the VIF index are highly satisfactory with scores fluctuating between .536 to .994 and 1.006 to 1.866 respectively.

6.2.4 Job Characteristics (JC)

Table 6.9 provides the descriptive statistics and correlations among QWL and the elements of JC. The item with the highest mean is 'job requires lots of physical effort' (I33) with a score of 3.16. This indicates that health care employees exert a moderate level of physical effort in their job. The parameter with the lowest mean is 'the assigned work is significant to the organisation' (I29) with a score of 2.61. This suggests that health care employees believe that their job holds less importance to the organisation. Examination of the standard deviation of JC elements reveals that all the scores are around or below 1. The correlation between all items of JC fluctuates from .109 to .587, indicating moderate effects. Further, QWL is strongly correlated with 'able to learn new skills' (I27) with a value of .844. QWL has moderate correlations with I28, I29, and I30 and low correlations with I31, I32, I33, and I34.

Table 6.9: Means, Standard Deviations and Correlations (JC)

Items	Mean	SD	QWL	I27	I28	I29	I30	I31	I32	I33	I34
QWL	2.67	.907	1								
I27	2.67	.869	.844**	1							
I28	2.73	.978	.649**	565**	1.						
I29	2.61	.934	.595**	.587**	.428**	1					
I30	2.75	.976	.634**	.554**	.527**	.437**	1				
I31	2.86	.981	.290**	.247**	.260**	.215**	.315**	1			
I32	2.91	.982	.174**	.109**	.153**	.134**	.204**	.342**	1		
I33	3.16	.985	.216**	.112**	.207**	.176**	.273**	.326**	.356**	1	
I34	3.08	.999	.196**	.110**	.200**	.153**	.266**	.316**	.251**	.508**	1

** p<.01, *p<.05

The elements of JC that significantly influence QWL of health care employees were analysed using multiple regression. Table 6.10, depicts the model summary that presents the value of R^2 as .785, which denotes that the elements of JC describe 78 percent of the observed variability in QWL. The value of adjusted R^2 is .783 (close to the value of R2), which shows the generalisability of the model. The F value (F = 439.839, p <.001)

describes the significance of the variance explained by the JC parameters. The regression coefficients disclose that the items I27, I28, I29, I30, and I33 significantly influence QWL. The highest beta coefficient is of I27 (.599), which shows its robust impact on QWL of health care employees. All the t-values associated with the beta coefficients are significant that explains the substantial contribution of the JC parameters towards better QWL. The model excludes I31, I32 and I34 as they do not have a substantial effect on QWL. The tolerance and the VIF index are highly satisfactory with scores fluctuating between .487 to .906 and 1.104 to 2.055 respectively.

Table 6.10: Model Summary, ANOVA, Coefficients and Collinearity Statistics (JC)

Model	Unstandardised Coefficients		Standardised Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.233	.077		-3.042	.002		
I27	.626	.028	.599	22.128	.000	.487	2.055
I28	.166	.023	.179	7.366	.000	.603	1.659
I30	.143	.023	.154	6.262	.000	.590	1.694
I29	.087	.023	.090	3.753	.000	.626	1.597
I33	.050	.018	.054	2.714	.007	.906	1.104
$R = .886$, $R^2 = .785$, Adjusted $R^2 = .783$, Std. Error of Estimate = .423, F = 439.839, Sig. = .000							
Dependent variable: QWL; Independent variables: (Constant), I27, I28, I30, I29, I33; Excluded Items: I31, I32, I34							

6.2.5 Compensation and Rewards (CR)

Table 6.11 displays the descriptive statistics and correlations among QWL and the parameters of CR. The item with the highest mean is the 'current position adequately reflects your education and training' (I42) with a score of 2.96. This value shows that health care employees feel that their current job position has less congruence with their education and training. The parameter with the lowest mean is 'salary increases to a fair extent every year' (I39) with a score of 2.58. This score suggests that the health care employees' receive minimal annual increments in their salary. The standard deviation of CR elements reveals that all the scores are below 1. All the parameters of CR have significant correlations with each other and range from .112 to .563, suggesting moderate effects. Further, QWL has a positive and significant relationship with all the elements of CR. Although QWL has a strong correlation with I40, it has moderate correlations with I36, I39, I41, I42, I44, and I45 and weak correlations with I37, I38, and I43.

Table 6.11: Means, Standard Deviations and Correlations (CR)

Items	Mean	SD	QWL	I36	I37	I38	I39	I40	I41	I42	I43	I44	I45
QWL	2.70	.945	1										
I36	2.67	.891	.414**	1									
I37	2.65	.902	.208**	.405**	1								
I38	2.94	.986	.284**	.417**	.283**	1							
I39	2.58	.904	.588**	.291**	.203**	.197**	1						
I40	2.59	.904	.750**	.300**	.138**	.183**	.481**	1					
I41	2.85	.984	.324**	.431**	.266**	.338**	.191**	.236**	1				
I42	2.96	.994	.313**	.383**	.210**	.513**	.229**	.222**	.470**	1			
I43	2.66	.915	.215**	.287**	.366**	.199**	.170**	.187**	.204**	.213**	1		
I44	2.86	.969	.378**	.483**	.264**	.328**	.219**	.270**	.506**	.370**	.220**	1	
I45	2.69	.986	.651**	.217**	.130**	.133**	.437**	.563**	.133**	.112**	.138**	.213**	1

** p< .01, *p<.05

Table 6.12: Model Summary, ANOVA, Coefficients and Collinearity Statistics (CR)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.433	.094		-4.623	.000		
I40	.452	.030	.433	15.273	.000	.591	1.693
I45	.263	.026	.274	10.086	.000	.641	1.559
I39	.205	.027	.196	7.546	.000	.701	1.426
I36	.104	.028	.098	3.735	.000	.686	1.457
I44	.084	.025	.086	3.347	.001	.712	1.404
I42	.068	.023	.072	2.940	.003	.792	1.262
$R = .845$, $R^2 = .715$, Adjusted $R^2 = .712$, Std. Error of Estimate = .507, F = 251.117, Sig. = .000							
Dependent variable: QWL; Independent variables: (Constant), I40, I45, I39, I36, I44, I42 ; Excluded Items: I37, I38, I41, I43							

The elements of CR that significantly influence QWL of health care employees were analysed using multiple regression. Table 6.12, depicts the model summary that presents the value of R^2 as .715, which represents that the elements of CR describe 71 percent of the observed variability in QWL. The value of adjusted R^2 is .712 (close to the value of R^2), which shows the generalisability of the model. The F value ($F = 251.117$, $p < .001$) denotes the significance of the variance explained by the CR parameters. The regression coefficients disclose that the items I36, I39, I40, I42, I44, and I45 significantly influence QWL. The highest beta coefficient is of I40 (.433), which depicts that 'receive fair payment for overtime work and night shifts' significantly influences the QWL of health care employees. All the t-values associated with the beta coefficients are significant that explains the substantial contribution of the CR parameters towards better QWL. The model excludes I37, I38, I41, and I43, as they do not have a substantial effect on QWL.

The tolerance and the VIF index are highly satisfactory with scores fluctuating between 0.591 to 0.792 and 1.262 to 1.693 respectively.

6.2.6 Social Support (SS)

Table 6.13 provides the descriptive statistics and correlations among QWL and the elements of SS. The means of item reveal a range of scores from 2.73 to 2.96. The item with the highest mean is 'co-workers share knowledge and information' (I51). This indicates that the co-workers of health care employees moderately share knowledge and information with each other. The parameter with the lowest mean is 'superiors recognise and value your work' (I49). This suggests that the superiors of health care employees poorly acknowledge and value their work. Examination of the standard deviation of SS elements reveals that all the scores are around 1. The parameters of SS correlate significantly with each other and ranges from .088 to .590, suggesting moderate relationships. Further, QWL has significant and positive correlation with all the elements of SS. Moreover, QWL has a strong correlation with I48 and I50, moderate correlations with I49 and I54 and weak correlations with I47, I51, I52, I53, I55, and I56.

Table 6.13: Means, Standard Deviations and Correlations (SS)

Items	Mean	SD	QWL	I47	I48	I49	I50	I51	I52	I53	I54	I55	I56
QWL	3.03	1.011	1										
I47	2.76	.961	.169**	1									
I48	2.89	1.015	.739**	.088*	1								
I49	2.73	.948	.334**	.146**	.199**	1							
I50	2.94	1.000	.729**	.123**	.590**	.199**	1						
I51	2.96	.991	.282**	.244**	.210**	.295**	.232**	1					
I52	2.83	.951	.260**	.245**	.119**	.382**	.173**	.243**	1				
I53	2.81	.942	.285**	.170**	.167**	.407**	.186**	.348**	.328**	1			
I54	2.87	1.005	.610**	.161**	.469**	.219**	.429**	.191**	.145**	.206**	1		
I55	2.78	.935	.243**	.296**	.182**	.345**	.194**	.381**	.335**	.324**	.168**	1	
I56	2.93	.999	.242**	.347**	.183**	.473**	.152**	.309**	.472**	.333**	.162**	.291**	1

** p< .01, *p<.05

The elements of SS that significantly influence QWL of health care employees were analysed using multiple regression. Table 6.14, depicts the model summary that presents the value of R^2 as .751, which denotes that the elements of SS explain 75 percent of the observed variability in QWL. The value of adjusted R^2 is .749 (close to the value of R^2), which shows the generalisability of the model. The F value ($F = 303.288$, $p < .001$) describes the significance of the variance explained by the SS parameters. The regression

coefficients disclose that the items I48, I49, I50, I52, I53, and I54 significantly influence QWL. The highest beta coefficient is of I48 (.379), which shows that 'receive individual help and support from your superiors' has a robust impact on QWL of health care employees. All the t-values associated with the beta coefficients are significant that explains the substantial contribution of the SS parameters towards better QWL. The model excludes I47, I51, I55, and I56 as they do not have a substantial effect on QWL. The tolerance and the VIF index are highly satisfactory with scores ranging between .592 to .811 and 1.233 to 1.689 respectively.

Table 6.14: Model Summary, ANOVA, Coefficients and Collinearity Statistics (SS)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.430	.097		-4.420	.000		
I48	.378	.026	.379	14.364	.000	.592	1.689
I50	.370	.026	.366	14.087	.000	.612	1.633
I54	.237	.024	.236	9.890	.000	.727	1.376
I49	.094	.025	.089	3.765	.000	.746	1.340
I52	.073	.024	.069	3.046	.002	.811	1.233
I53	.049	.025	.046	2.003	.046	.785	1.273
$R = .867$, $R^2 = .751$, Adjusted $R^2 = .749$, Std. Error of Estimate = .507, F = 303.288, Sig. = .000							
Dependent variable: QWL; Independent variables: (Constant), I48, I50, I54, I49, I52, I53; Excluded Items: I47, I51, I55, I56							

6.2.7 Job Security (JS)

Table 6.15 showcases the descriptive statistics and correlations among QWL and the parameters of JS. The item means reflect a range of values from 2.40 to 2.71. The item with the highest mean is the 'assigned a temporary position' (I58). This indicates that health care organisations mostly engage employees in contractual positions. The item with the lowest mean is 'experiencing desirable changes in the work situation' (I60). This value suggests that health care employees are experiencing undesirable variations in their workplace. Inspection of the standard deviation of JS items reveals that all the values are below 1. All the elements of JS significantly correlate among themselves and the coefficients range from .172 to .599, suggesting moderate effects. Further, QWL is has a significant relationship with all the elements of JS. Specifically, QWL is strongly correlated with I58 and moderately correlated with I59, I60, I61, and I62.

Table 6.15: Means, Standard Deviations and Correlations (JS)

Items	Mean	SD	QWL	I58	I59	I60	I61	I62
QWL	2.60	.881	1					
I58	2.71	.884	.738**	1				
I59	2.70	.925	.665**	.524**	1			
I60	2.40	.848	.321**	.172**	.208**	1		
I61	2.65	.914	.663**	.599**	.419**	.191**	1	
I62	2.61	.891	.671**	.560**	.455**	.221**	.450**	1

** p< .01, *p<.05

Multiple regression analysis was conducted to identify the parameters of JS that significantly predict QWL of health care employees. The model summary shown in Table 6.16, provides the value of R^2 as .710, which implies that the parameters of JS explain 71 percent of the observed variability in QWL. The value of adjusted R^2 is .709 (close to the value of R^2), thus indicating the generalisability of the model. The F value (F = 494.584, p < .001) highlights that the variance explained by the predictor items are highly significant. The regression coefficients reveal that I58, I59, and I62 are significant predictors of QWL. The highest beta coefficient is of item I58 (.404), which depicts its strong influence on QWL of health care employees. The t-value is the measures of whether the predictor is making a significant contribution to the model. All the t-values associated with the beta coefficients are significant that explains the substantial contribution of the JS parameters towards better QWL. The model excludes I60 and I61 as they do not predict QWL considerably. The items of JS are associated with tolerance index above .2 and the VIF index below 10, which reveals the absence of multicollinearity.

Table 6.16: Model Summary, ANOVA, Coefficients and Collinearity Statistics (JS)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.080	.072		-1.105	.269		
I58	.403	.028	.404	14.250	.000	.595	1.681
I59	.301	.025	.316	11.970	.000	.687	1.455
I62	.297	.027	.301	11.080	.000	.650	1.538
R = .843, R^2 = .710, Adjusted R^2 = .709, Std. Error of Estimate = .475, F = 494.584, Sig. = .000							
Dependent variable: QWL; Independent variables: (Constant), I58, I59, I62; Excluded Items: I60, I61							

6.2.8 Employee Welfare (EW)

Table 6.17 provides the descriptive statistics and correlations among QWL and the parameters of EW. The item with the highest mean is the ‘contribution of the organisation

towards employee's provident fund' (I69) with a score of 2.86. This value indicates that very few health care organisations contribute to the employee's provident fund. The parameter with the lowest mean is 'availing organisational conveyance facility' (I65) with a score of 2.53. This value suggests that most of the health care units have poor provisions for conveyance. Examination of the standard deviations of EW elements reveals that all the values are below 1. All the parameters of EW correlate significantly among themselves with coefficients fluctuating from .086 to .773. Further, QWL has significant and positive relationship with all the elements of EW. Specifically, QWL has strong correlations with I67 and I70, moderate correlation with I66, I68, and I69, and weak correlations with I64 and I65.

Table 6.17: Means, Standard Deviations and Correlations (EW)

Items	Mean	SD	QWL	I64	I65	I66	I67	I68	I69	I70
QWL	2.83	.968	1							
I64	2.62	.884	.293**	1						
I65	2.53	.538	.217**	.086*	1					
I66	2.66	.910	.338**	.159**	.245**	1				
I67	2.69	.929	.810**	.245**	.200**	.235**	1			
I68	2.61	.890	.384**	.116**	.281**	.459**	.266**	1		
I69	2.86	.974	.624**	.218**	.140**	.238**	.536**	.245**	1	
I70	2.66	.914	.717**	.232**	.180**	.238**	.773**	.261**	.470**	1

** p< .01, *p<.05

The elements of EW that significantly predict QWL of health care employees were identified using multiple regression. Table 6.18, depicts the model summary that presents the value of R^2 as .740, which denotes that the elements of EW explain 74 percent of the observed variability in QWL. The value of adjusted R^2 is .738 (close to the value of R^2), which shows the generalisability of the model. The F value ($F = 429.881$, $p < 0.001$) describes the significance of the variance explained by the EW parameters. The regression coefficients disclose that the items I67, I68, I69, and I70 significantly predict QWL. The highest beta coefficient is of I67 (0.512), which depicts that 'facilities for treatment of self and family' has a robust influence on QWL of health care employees. All the t-values associated with the beta coefficients are significant that explains the substantial contribution of the EW parameters towards better QWL. The model excludes I64, I65, and I66 as they do not predict QWL considerably. The tolerance and the VIF index are highly satisfactory with scores above .2 and below 10 respectively.

Table 6.18: Model Summary, ANOVA, Coefficients and Collinearity Statistics (EW)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.169	.082		-2.059	.040		
I67	.533	.036	.512	14.866	.000	.363	2.758
I69	.231	.025	.232	9.334	.000	.696	1.437
I68	.159	.024	.146	6.702	.000	.909	1.100
I70	.184	.035	.174	5.268	.000	.395	2.529
R = .860, R^2 = .740, Adjusted R^2 = .738, Std. Error of Estimate = .495, F = 429.881, Sig. = .000							
Dependent variable: QWL; Independent variables: (Constant), I67, I69, I68, I70 ; Excluded Items: I64, I65, I66							

6.2.9 Grievance Management (GM)

Table 6.19 provides the descriptive statistics and correlations among QWL and the elements of GM. The means of item reveal a range of scores from 2.38 to 2.55. The item with the highest mean is 'fair decisions are taken on grievances' (I75). This indicates that decisions made on grievances reflect low degree of fairness. The parameter with the lowest mean is 'Immediate implementation and follow-up of the decision taken' (I76). This suggests that the decisions made on grievances of employees are poorly implemented in the health care organisations. Assessment of the standard deviation of GM elements reveals that all the scores are below 1. The element 'attention is paid to the reported grievances' (I73) does not have a significant correlation with other items of GM. The correlation between all other items of GM varies from .229 to .546. Further, QWL has a significant relationship with all GM elements except I73.

Table 6.19: Means, Standard Deviations and Correlations (GM)

Items	Mean	SD	QWL	I72	I73	I74	I75	I76	I77
QWL	2.66	.872	1						
I72	2.44	.841	.606**	1					
I73	2.42	.562	.046	.007	1				
I74	2.52	.881	.734**	.540**	.012	1			
I75	2.55	.869	.724**	.545**	.040	.546**	1		
I76	2.38	.784	.392**	.257**	-.048	.274**	.229**	1	
I77	2.53	.850	.437**	.289**	-.079	.295**	.259**	.451**	1

** p< .01, *p<.05

The elements of GM that significantly influence QWL of health care employees were analysed using multiple regression. Table 6.20, depicts the model summary that presents the value of R^2 as .731, which denotes that the elements of GM describe 73

percent of the observed variability in QWL. The value of adjusted R^2 is .729 (close to the value of R^2), which shows the generalisability of the model. The F value (F = 410.150, p < .001) describes the significance of the variance explained by the GM parameters. The regression coefficients disclose that the items I72, I74, I75, and I77 significantly influence QWL. The highest beta coefficient is of I74 (.400), which depicts that 'adequate enquiry is conducted for grievances' has a robust impact on QWL of health care employees. All the t-values associated with the beta coefficients are significant that explains the substantial contribution of the GM parameters towards better QWL. The model excludes I73 and I76 as they do not have a substantial effect on QWL. The tolerance and the VIF index are at standard levels with scores fluctuating between .606 to .885 and 1.130 to 1.650 respectively.

Table 6.20: Model Summary, ANOVA, Coefficients and Collinearity Statistics (GM)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.122	.075		-1.622	.105		
I74	.395	.027	.400	14.744	.000	.606	1.650
I75	.392	.027	.390	14.448	.000	.610	1.639
I77	.187	.023	.182	8.108	.000	.885	1.130
I72	.130	.028	.125	4.626	.000	.609	1.642
R = .855, R^2 = .731, Adjusted R^2 = .729, Std. Error of Estimate = .454, F = 410.150, Sig. = .000							
Dependent variable: QWL; Independent variables: (Constant), I74, I75,I77,I72; Excluded Items: I73, I76							

6.2.10 Teamwork and Communication (TWC)

Table 6.21 provides the descriptive statistics and correlations among QWL and the elements of TWC. The item with the highest mean is 'members support each other during high workload' (I80) with a score of 2.95. This indicates that team members in health care organisations moderately support each other during high workload. The parameter with the lowest mean is 'individual expertise is respected by team members' (I83) with a score of 2.32. This suggests that team members have a low level of respect for the expertise of other members in health care organisation. Examination of the standard deviation of TWC elements reveals that all the scores are around or below 1. The correlation between all items of TWC fluctuates from .176 to .603, indicating moderate effects. Further, QWL is strongly correlated with 'team members have complimentary skill set' (I79) with a value

of .714. QWL has moderate correlations with I81, I83, I84, I85, and I86 but low correlations with I80 and I82.

Table 6.21: Means, Standard Deviations and Correlations (TWC)

Items	Mean	SD	QWL	I79	I80	I81	I82	I83	I84	I85	I86
QWL	2.62	.986	1								
I79	2.56	1.059	.714**	1							
I80	2.95	1.028	.272**	.264**	1						
I81	2.59	.931	.448**	.363**	.352**	1					
I82	2.65	.928	.274**	.232**	.350**	.301**	1				
I83	2.32	.997	.613**	.531**	.207**	.394**	.176**	1			
I84	2.65	1.012	.465**	.407**	.318**	.431**	.329**	.410**	1		
I85	2.45	.950	.670**	.578**	.220**	.344**	.194**	.542**	.392**	1	
I86	2.47	.914	.613**	.527**	.210**	.321**	.179**	.477**	.355**	.603**	1

** p< .01, *p<.05

Table 22: Model Summary, ANOVA, Coefficients and Collinearity Statistics (TWC)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.191	.077		2.491	.013		
I79	.352	.029	.378	12.009	.000	.570	1.755
I85	.248	.035	.239	7.147	.000	.507	1.973
I83	.197	.030	.199	6.607	.000	.620	1.612
I86	.189	.034	.175	5.579	.000	.575	1.738
$R = .812$, $R^2 = .659$, Adjusted $R^2 = .657$, Std. Error of Estimate = .578, F = 291.787, Sig. = .000							
Dependent variable: QWL; Independent variables: (Constant), I79, I85, I83, I86 ; Excluded Items: I80, I81, I82, I84							

The elements of TWC that significantly influence QWL of health care employees were analysed using multiple regression. Table 6.22, depicts the model summary that presents the value of R^2 as .659, which denotes that the elements of TWC describe 65 percent of the observed variability in QWL. The value of adjusted R^2 is .657 (close to the value of R^2), which shows the generalisability of the model. The F value ($F = 291.787$, $p < .001$) describes the significance of the variance explained by the TWC parameters. The regression coefficients disclose that the items I79, I83, I85, and I86 significantly influence QWL. The highest beta coefficient is of I79 (.378), which shows its robust impact on QWL of health care employees. All the t-values associated with the beta coefficients are significant that explains the substantial contribution of the TWC parameters towards better QWL. The model excludes I80, I81, I82, and I84 as they do not have a substantial

effect on QWL. The tolerance and the VIF index are at standard level with scores above .2 and below 10 respectively.

6.2.11 Empowerment and Involvement (EI)

Table 6.23 displays the descriptive statistics and correlations among QWL and the parameters of EI. The item with the highest mean is the 'clarity of roles and responsibilities in job' (I93) with a score of 2.94. This score suggests that health care employees have a moderate level of clarity on their job roles and responsibilities. The parameter with the lowest mean is 'involvement in the open discussions of employee-employer forum' (I96) with a score of 2.40. This score suggests that the health care organisations have few number of employer-employee discussion forums. The standard deviation of EI elements reveals that all the scores are around or below 1. All the parameters of EI have significant correlations with each other and coefficients ranges from .184 to .544, suggesting moderate effects. Further, QWL has a positive and significant relationship with all the elements of EI. Specifically, QWL has moderate correlations with all EI items.

Table 6.23: Means, Standard Deviations and Correlations (EI)

Items	Mean	SD	QWL	I88	I89	I90	I91	I92	I93	I94	I95	I96
QWL	2.68	.865	1									
I88	2.67	.819	.370**	1								
I89	2.64	.836	.628**	.211**	1							
I90	2.71	.920	.325**	.436**	.191**	1						
I91	2.44	.819	.636**	.257**	.516**	.259**	1					
I92	2.82	.991	.371**	.224**	.344**	.281**	.220**	1				
I93	2.94	1.000	.420**	.184**	.355**	.215**	.241**	.436**	1			
I94	2.44	.831	.627**	.205**	.533**	.218**	.544**	.268**	.222**	1		
I95	2.56	.907	.384**	.513**	.228**	.356**	.226**	.279**	.265**	.240**	1	
I96	2.40	.848	.338**	.434**	.213**	.258**	.222**	.274**	.224**	.234**	.518**	1

** p< .01, *p<.05

The elements of EI that significantly influence QWL of health care employees were analysed using multiple regression. Table 6.24, depicts the model summary that presents the value of R^2 as .634, which represents that the elements of EI describe 63 percent of the observed variability in QWL. The value of adjusted R^2 is .631 (close to the value of R^2), which shows the generalisability of the model. The F value ($F = 208.994$, $p < .001$) denotes the significance of the variance explained by the EI parameters. The

regression coefficients disclose that the items I88, I89, I91, I93, and I94 significantly influence QWL. The highest beta coefficient is of I91 (.279), which depicts that 'flexible and decentralisation in job' significantly influences the QWL of health care employees. All the t-values associated with the beta coefficients are significant that explains the substantial contribution of the EI parameters towards better QWL. The model excludes I90, I92, I95, and I96, as they do not have a substantial effect on QWL. The tolerance and the VIF index are highly satisfactory with scores fluctuating between .599 to .912 and 1.096 to 1.668 respectively.

Table 6.24: Model Summary, ANOVA, Coefficients and Collinearity Statistics (EI)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.296	.101		-2.927	.004		
I91	.294	.033	.279	8.895	.000	.618	1.618
I89	.249	.033	.241	7.560	.000	.599	1.668
I94	.287	.033	.276	8.778	.000	.616	1.624
I93	.153	.023	.177	6.669	.000	.859	1.164
I88	.167	.027	.158	6.138	.000	.912	1.096
$R = .796$, $R^2 = .634$, Adjusted $R^2 = .631$, Std. Error of Estimate = .526, F = 208.994, Sig. = .000							
Dependent variable: QWL; Independent variables: (Constant), I91, I89, I94, I93, I88; Excluded Items: I90, I92, I95, I96							

6.2.12 Work-Life Balance (WLB)

Table 6.25 provides the descriptive statistics and correlations among QWL and the elements of WLB. The means of item reveal a range of scores from 2.10 to 2.65. The item with the highest mean is 'provision of maternity/paternity benefits' (I99). This indicates that the health care organisations have poor provisions of maternity/paternity benefits. The parameter with the lowest mean is 'provision for child care/elderly care during work hours' (I100). This suggests that the health care organisations have no provisions for child care/ elderly care during work hours. Examination of the standard deviation of WLB elements reveals that all the scores are below 1. All the parameters of WLB except I100 correlate significantly with each other and ranges from .204 to .607. Further, QWL has significant and positive relationship with all the elements of WLB except I100. Moreover, QWL has moderate correlations with I98, I101, I102, and I103 and weak correlations with I99.

Table 6.25: Means, Standard Deviations and Correlations (WLB)

Items	Mean	SD	QWL	I98	I99	I100	I101	I102	I103
QWL	2.45	.993	1						
I98	2.56	.787	.687**	1					
I99	2.65	.928	.262**	.213**	1				
I100	2.10	.419	.029	.026	.066	1			
I101	2.43	.820	.357**	.437**	.105**	-.063	1		
I102	2.48	.849	.622**	.607**	.241**	.045	.328**	1	
I103	2.36	.828	.585**	.566**	.204**	.033	.276**	.519**	1

** p< .01, *p<.05

The elements of WLB that significantly influence QWL of health care employees were analysed using multiple regression. Table 6.26, depicts the model summary that presents the value of R^2 as .575, which denotes that the elements of WLB explain 57 percent of the observed variability in QWL. The value of adjusted R^2 is .572 (close to the value of R^2), which shows the generalisability of the model. The F value ($F = 203.951$, $p < .001$) describes the significance of the variance explained by the WLB parameters. The regression coefficients disclose that the items I98, I99, I02 and I103 significantly predict QWL. The highest beta coefficient is ofI98 (.500), which shows that 'weekly holiday is provided after consecutive working days' has a robust impact on QWL of health care employees. All the t-values associated with the beta coefficients are significant that explains the substantial contribution of the WLB parameters towards better QWL. The model excludes I100 and I101, as they do not have a significant effect on QWL. The tolerance and the VIF index are highly satisfactory with scores ranging between .544 to .931 and 1.075 to 1.840 respectively.

Table 6.26: Model Summary, ANOVA, Coefficients and Collinearity Statistics (WLB)

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.372	.111		-3.342	.001		
I98	.500	.045	.397	11.021	.000	.544	1.840
I102	.295	.041	.252	7.230	.000	.578	1.730
I103	.257	.040	.215	6.412	.000	.628	1.593
I99	.078	.029	.073	2.665	.008	.931	1.075
$R = .758$, $R^2 = .575$, Adjusted $R^2 = .572$, Std. Error of Estimate = .650, $F = 203.951$, Sig. = .000							
Dependent variable: QWL; Independent variables: (Constant), I98, I102, I103, I99; Excluded Items: I100, I101							

6.2.13 Quality of Work Life (QWL)

Table 6.27 provides the descriptive statistics and correlations for the elements of QWL. The item with the highest mean is 'feeling enhanced personal growth' (I113) with a score of 2.63. This indicates that health care employees feel a poor degree of personal growth. The parameter with the lowest mean is 'life is close to ideal' (I114) with a score of 2.40. This suggests that life of health care employees is less close to ideal. Examination of the standard deviation of QWL elements reveals that all the scores are below 1. The items of QWL correlate positively and significantly with each other, which vary from .158 to .793. Further, the correlations of I105 with I109 and I114; and I112 with I114 are strong. The correlations of I105 with I112; I106 with 109 and I110; I107 with 108, I110 and I111; I108 with I110, I111 and I113; II109 with I112 and I114; I110 with I111 and I113; and I112 with I114 are moderate. The correlations among all other items of QWL are weak.

Table 6.27: Means, Standard Deviations and Correlations (QWL)

Items	Mean	SD	I105	I106	I107	I108	I109	I110	I111	I112	I113	I114
I105	2.62	.854	1									
I106	2.45	.845	.282**	1								
I107	2.61	.735	.224**	.224**	1							
I108	2.47	.896	.274**	.273**	.439**	1						
I109	2.55	.909	.747**	.322**	.183**	.273**	1					
I110	2.50	.837	.196**	.313**	.382**	.476**	.225**	1				
I111	2.52	.811	.251**	.268**	.569**	.491**	.264**	.394**	1			
I112	2.45	.927	.651**	.257**	.202**	.251**	.670**	.226**	.209**	1		
I113	2.63	.881	.189**	.162**	.288**	.353**	.207**	.368**	.373**	.158**	1	
I114	2.40	.832	.700**	.282**	.248**	.226**	.688**	.180**	.238**	.793**	.163**	1

** p< .01, *p<.05

6.2.14 Employee Commitment (EC)

Table 6.28 showcases the descriptive statistics and correlations the parameters of EC. The item means reflect a range of values from 2.55 to 2.87. The item with the highest mean is the 'too costly to leave the organisation right now' (I123). This indicates that it is less costly for the health care employees to exit the organisation. The item with the lowest mean is 'difficult to leave the organisation irrespective of a better job offer' (I20). This value suggests that health care employees will leave the organisation when they have a better job offer. Inspection of the standard deviation of EC items reveals that all the values are below 1. The correlations of I115 with I120; and I121with other EC items are not significant. All other elements of EC correlate positively and significantly with each other,

which vary from .103 to .746. Further, the correlation of I117 with I122 is strong. The correlations of I116 with I17, I120 and I122; I117 with I120; I118 with I119; and I120 with I122 are moderate, and the correlations among all other parameters of EC are weak.

Table 6.28: Means, Standard Deviations and Correlations (EC)

Items	Mean	SD	I115	I116	I117	I118	I119	I120	I121	I122	I123
I115	2.67	.935	1								
I116	2.57	.865	.132**	1							
I117	2.58	.944	.145**	.655**	1						
I118	2.67	.939	.250**	.286**	.285**	1					
I119	2.64	.902	.194**	.181**	.240**	.536**	1				
I120	2.55	.938	.072	.695**	.665**	.236**	.143**	1			
I121	2.75	.916	.111**	-.013	-.019	.027	.002	.014	1		
I122	2.62	.911	.105**	.684**	.746**	.280**	.207**	.649**	-.017	1	
I123	2.87	.976	.185**	.103*	.146**	.268**	.208**	.109**	-.060	.108**	1

** p<.01, *p<.05

6.2.15 Turnover Intention (TI)

Table 6.29: Means, Standard Deviations and Correlations (TI)

Items	Mean	SD	I124	I125	I126	I127	I128	I129	I130	I131	I132	I133
I124	3.72	.982	1									
I125	4.18	1.236	.430**	1								
I126	3.71	1.095	.393**	.421**	1							
I127	3.73	1.089	.482**	.388**	.342**	1						
I128	4.00	1.257	.435**	.852**	.405**	.413**	1					
I129	3.72	1.071	.401**	.371**	.356**	.367**	.361**	1				
I130	4.16	1.201	.412**	.869**	.396**	.378**	.837**	.343**	1			
I131	3.88	1.098	.447**	.444**	.371**	.398**	.411**	.381**	.432**	1		
I132	3.01	1.065	.180**	.138**	.158**	.168**	.177**	.216**	.123**	.174**	1	
I133	3.19	1.019	.239**	.278**	.158**	.190**	.328**	.200**	.283**	.270**	.238**	1

** p< .01, *p<.05

Table 6.29 displays the descriptive statistics and correlations among the parameters of TI. The item with the highest mean is 'seriously thinking of quitting the job' (I125) with a score of 4.18. This score suggests that health care employees completely willing to quit their current job. The parameter with the lowest mean is 'Will not stay with the present employer until retirement' (I132) with a score of 3.01. This score suggests that the health care employees moderately want to continue in the current organisation until retirement. The standard deviation of TI elements reveals that all the scores are above1 except the score of I124 (.982). All the items of TI significantly and positively correlate among themselves and the coefficients range from .123 to .869. Further, the correlations of I125

with I128 and I130; and I128 with I130 are strong. The correlations of I33 with I124, I125, I126, I127, I129, 130 and 132; and I132 with all elements of TI are weak. The correlations among all other items of TI are moderate.

Thus, the preliminary analyses of obtained data revealed that the average scores of the study variables range between 2.1 to 4.2 (figure 6.1). In particular, the items of QWL presented the poor perceptions of QWL among health care employees in India. Further, the elements of turnover intention depicted a high level of turnover intention among the employees in private health care units of India. The standard deviations of all the study items were below or around 1. The correlation among the items of most of the study variables was significant except few items. The regression analysis disclosed that the variables of job dimensions and HR interventions significantly predicted QWL with R^2 values ranging from .57 to .78 depicting that more than 50% of the variance in dependent variable was explained by independent variables. All the regression models were statistically significant at .01 levels.

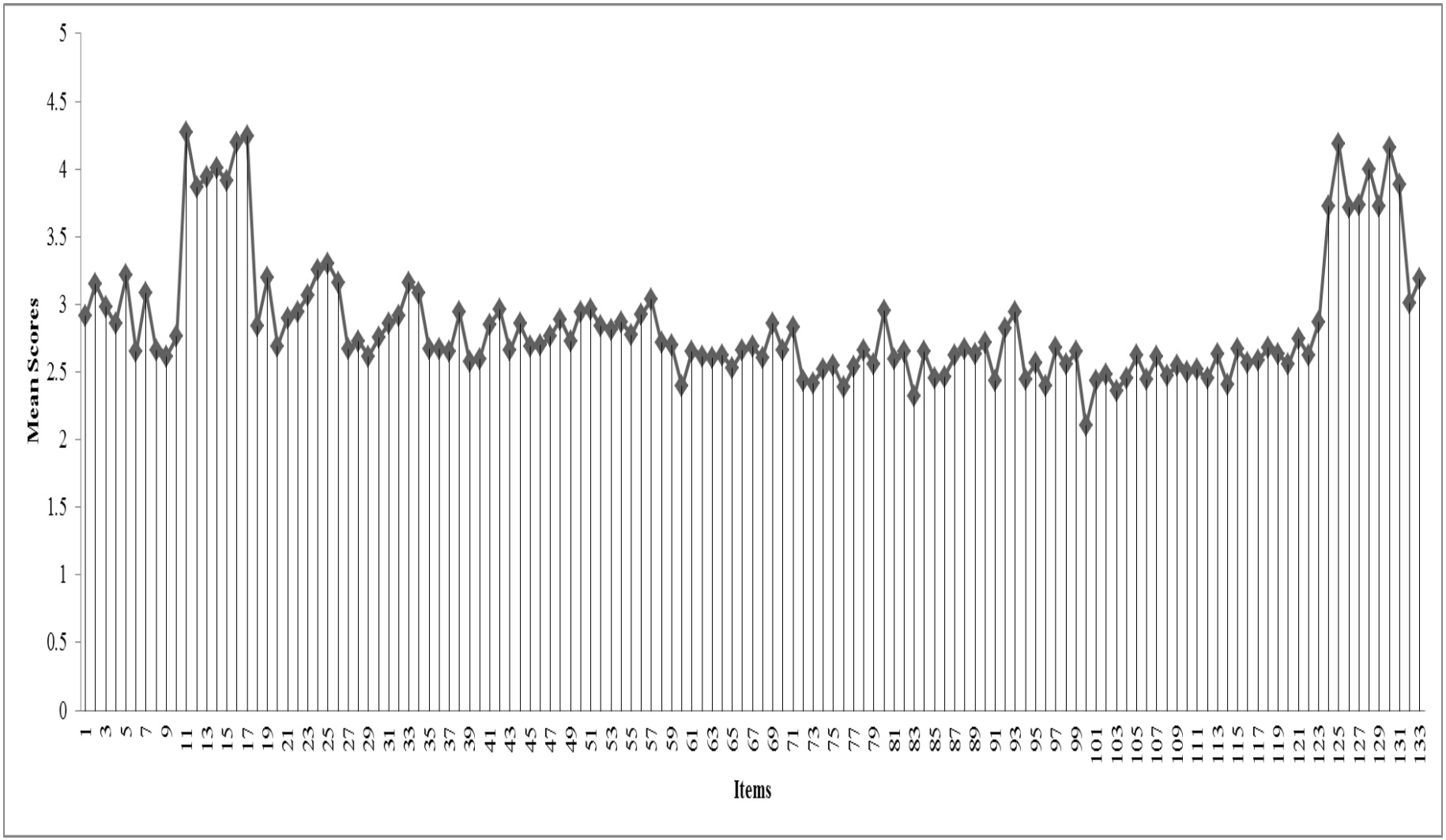


Figure 6.1: Mean Scores of the Study Items

6.3 Validation of the Hypothesised Research Model

Anderson and Gerbing (1992) have suggested a two-step approach to conduct structural equation modelling; the first phase is to ascertain the appropriateness of the measurement model and the second phase is to test the structural model. Prior to conducting structural equation modelling, the exploratory factor analysis (EFA) was performed for reducing the number of attributes per each latent variable and improving the statistical power of the hypothesised research model. The factors extracted from EFA were subjected to confirmatory factor analysis in the measurement model. Further, the structural model tested the hypothesis of the study.

6.3.1 Exploratory Factor Analysis

An EFA with the principal component method and varimax rotation was carried out by investigating the one hundred thirty three items that cover all the study variables. The items were subjected to a series of EFA to obtain theoretically meaningful dimensions. Eventually, forty nine attributes were retained which had communalities greater than .5, factor loadings above .6 and did not of cross-load on other components (Hair et al., 2014).

Table 6.30: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.884
Bartlett's Test of Sphericity	Approx. Chi-Square	15593.076
	Df	1176
	Sig.	***

*** p <.001

Two statistical measures have established the suitability of the EFA, the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy, and Bartlett's test of sphericity. The KMO value ranges from 0 to 1, and a value closer to 1 specifies that the patterns of correlation among attributes can generate unique and consistent factors. Hutcheson and Sofroniou (1999) specified that the KMO measure above .8 is meritorious. A Bartlett's test of Sphericity assesses the assumption that the correlation matrix is an identity matrix which means that the attributes have no correlation with each other. Table 6.30 showcases the KMO value as 0.884, suggesting that items can yield distinctive and reliable factors. The Bartlett's test of Sphericity reveals a chi-square statistic of 15593.076 with 1176 degrees of freedom, which is significant at .001 levels. The results reject the assumption

that the correlation matrix is an identity matrix, and there is a significant correlation among some of the attributes.

The communality of an item is the percentage of variance that is common with other items considered and varies from 0 to 1. The attributes having a communality of less than .5 do not provide sufficient explanation of the common variance (MacCallum et al., 1999). The communalities of the attributes presented in table 6.31 are in a range of .594 to .906 indicating that all the items have an adequate amount of shared variance with other items.

Table 6.31: Communalities of Loaded Items

Loaded Items	*Communalities*
I6	.741
I8	.757
I9	.675
I11	.692
I16	.787
I17	.650
I19	.727
I24	.796
I25	.683
I27	.758
I28	.625
I29	.673
I30	.700
I39	.642
I40	.710
I45	.744
I48	.727
I50	.739
I54	.624
I58	.764
I61	.695
I62	.643
I67	.839
I69	.594
I70	.784
I72	.682
I74	.693
I75	.740
I79	.687
I83	.661
I85	.711
I86	.671
I89	.720
I91	.691

I94	.694
I98	.750
I102	.698
I103	.731
I105	.774
I109	.763
I112	.781
I114	.830
I116	.749
I117	.778
I120	.759
I122	.794
I125	.906
I128	.886
I130	.899

Table 6.32 highlights that fifteen factors were extracted with eigenvalues greater than 1 that collectively justify about 73% of the variance. The variance attributed to the first factor is substantially larger than rest of the fourteen factors. The rotated component matrix of the loaded attributes is derived by adopting varimax rotation (table 6.33). The varimax rotation maximises the dispersion of loadings within factors by loading a small number of variables on each factor to facilitate in better interpretation of factors. Osborne and Costello (2009:138) recommend that "a factor with fewer than three items is weak and unstable while five or more items with loadings above .6 are desirable and indicate a solid factor". All the extracted factors of the study have at least three items, and the factor loadings of all elements are greater than .6. Thus, all the extracted factors prove to be concrete and reliable. Moreover, the forty nine items loaded extensively on the fifteen factors representing the study variables (table 6.34).

Table 6.32:Total Variance Explained by Extracted Factors

Factor	*Initial Eigenvalues*			*Extraction Sums of Squared Loadings*			*Rotation Sums of Squared Loadings*		
	Total	*% of Variance*	*Cumulative %*	*Total*	*% of Variance*	*Cumulative %*	*Total*	*% of Variance*	*Cumulative %*
1	11.619	23.712	23.712	11.619	23.712	23.712	3.252	6.637	6.637
2	3.517	7.178	30.890	3.517	7.178	30.890	2.969	6.060	12.697
3	2.766	5.645	36.535	2.766	5.645	36.535	2.813	5.740	18.437
4	2.270	4.634	41.169	2.270	4.634	41.169	2.618	5.342	23.779
5	1.911	3.901	45.070	1.911	3.901	45.070	2.540	5.184	28.963
6	1.840	3.756	48.825	1.840	3.756	48.825	2.314	4.722	33.685
7	1.673	3.414	52.239	1.673	3.414	52.239	2.228	4.546	38.231
8	1.609	3.284	55.524	1.609	3.284	55.524	2.180	4.449	42.680
9	1.465	2.991	58.514	1.465	2.991	58.514	2.168	4.424	47.103
10	1.388	2.834	61.348	1.388	2.834	61.348	2.168	4.424	51.527
11	1.302	2.657	64.005	1.302	2.657	64.005	2.159	4.406	55.933
12	1.235	2.520	66.524	1.235	2.520	66.524	2.154	4.397	60.330
13	1.090	2.224	68.748	1.090	2.224	68.748	2.117	4.321	64.651
14	1.082	2.208	70.957	1.082	2.208	70.957	2.076	4.237	68.889
15	1.047	2.137	73.093	1.047	2.137	73.093	2.060	4.205	73.093

Extraction Method: Principal Component Analysis.

Table 6.33: Rotated Component Matrix of Extracted Factors

Loaded Items	*Factor*														
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
I122	.810														
I120	.782														
I117	.782														
I116	.748														
I114		.792													
I112		.755													
I105		.735													
I109		.725													
I85			.782												
I79			.761												
I83			.758												
I86			.743												
I130				-.851											
I125				-.849											
I128				-.822											
I27					.778										
I29					.715										
I30					.704										
I28					.667										
I8						.815									
I6						.793									
I9						.765									
I67							.829								
I70							.806								
I69							.662								

Loaded Items	*Factor*														
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
I103								.808							
I98								.799							
I102								.723							
I24									.866						
I19									.827						
I25									.796						
I58										.818					
I61										.760					
I62										.737					
I16											.866				
I11											.783				
I17											.755				
I75												.803			
I72												.731			
I74												.724			
I89													.767		
I91													.761		
I94													.744		
I48														.805	
I50														.759	
I54														.726	
I45															.820
I40															.793
I39															.734

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Table 6.34: Extracted Factors

Factors	*Extracted Items*
Physical Work Environment (PWE)	I6, I8 and I9
Occupational Stress (OS)	I11, I16 and I17
Career Growth and Development (CGD)	I19, I24 and I25
Job Characteristics (JC)	I27, I28, I29 and I30
Compensation and Rewards (CR)	I39, I40 and,I45
Social Support (SS)	I48, I50 and I54
Job Security (JS)	I58, I61 and I62
Employee Welfare (EW)	I67, I69 and I70
Grievance Management (GM)	I72, I74 and I75
Teamwork and Communication (TC)	I79, I83, I85 and I86
Empowerment and Involvement (EI)	I89, I91and I94
Work-Life Balance (WLB)	I98, I102 and I103
Quality of Work Life (QWL)	I105, I109, I112 and I114
Employee Commitment (EC)	I116, I117, I120 and I122
Turnover Intention (TI)	I125, I128 and I130

6.3.2 Measurement Model

The first step of SEM is to conduct a confirmatory factor analysis to evaluate the indicators and their latent construct in the measurement model and establish the considerable difference between the various construct. As observed in figure 6.2, the measurement model of the study comprised of fifteen latent constructs and forty nine indicators. Each indicator had only one path from the latent construct, and all the latent constructs were correlated with each other. The model fit of the measurement model was investigated through several model fit indices. The indices comprises of the absolute fit measures such as normed chi-square (χ^2/df), goodness of fit index (GFI) and root mean square error of approximation (RMSEA); the incremental fit measures such as Tucker-Lewis index (TLI) and comparative fit index (CFI); and the parsimony fit measures such as adjusted goodness of fit index (AGFI) and parsimony comparative fit index (PCFI). A model has acceptable fit when it has χ^2/df in the range of 5 to 1 (Arbuckle, 2009); RMSEA lower than 0.08 (Browne and Cudeck, 1993); GFI, TLI and CFI values greater than 0.9 (Hu and Bentler, 1999) with AGFI and PCFI values greater than 0.5 and close to the value of GFI and CFI (Mulaik et al., 1989). Further, Hoelter's statistics estimates the sample size required to yield adequate model fit (Byrne, 2010). The model fit indices showcased in table 6.35 which conclude all the fifteen latent constructs of research model obtained satisfactory fit (χ^2[1022]=1978.105, p<.001, χ^2/df=1.936, GFI=.884, RMSEA=.039, TLI=.926, CFI=.936, AGFI=.861, PCI=.813, Hoelter = 338 (.05), 348 (.01)). Although, the value of GFI for the measurement model is below the threshold

value of 0.9, some studies (Zhang and Bartol, 2010; Chow and Chan, 2008) have considered values slightly below the threshold values to be an indicator of satisfactory model fit.

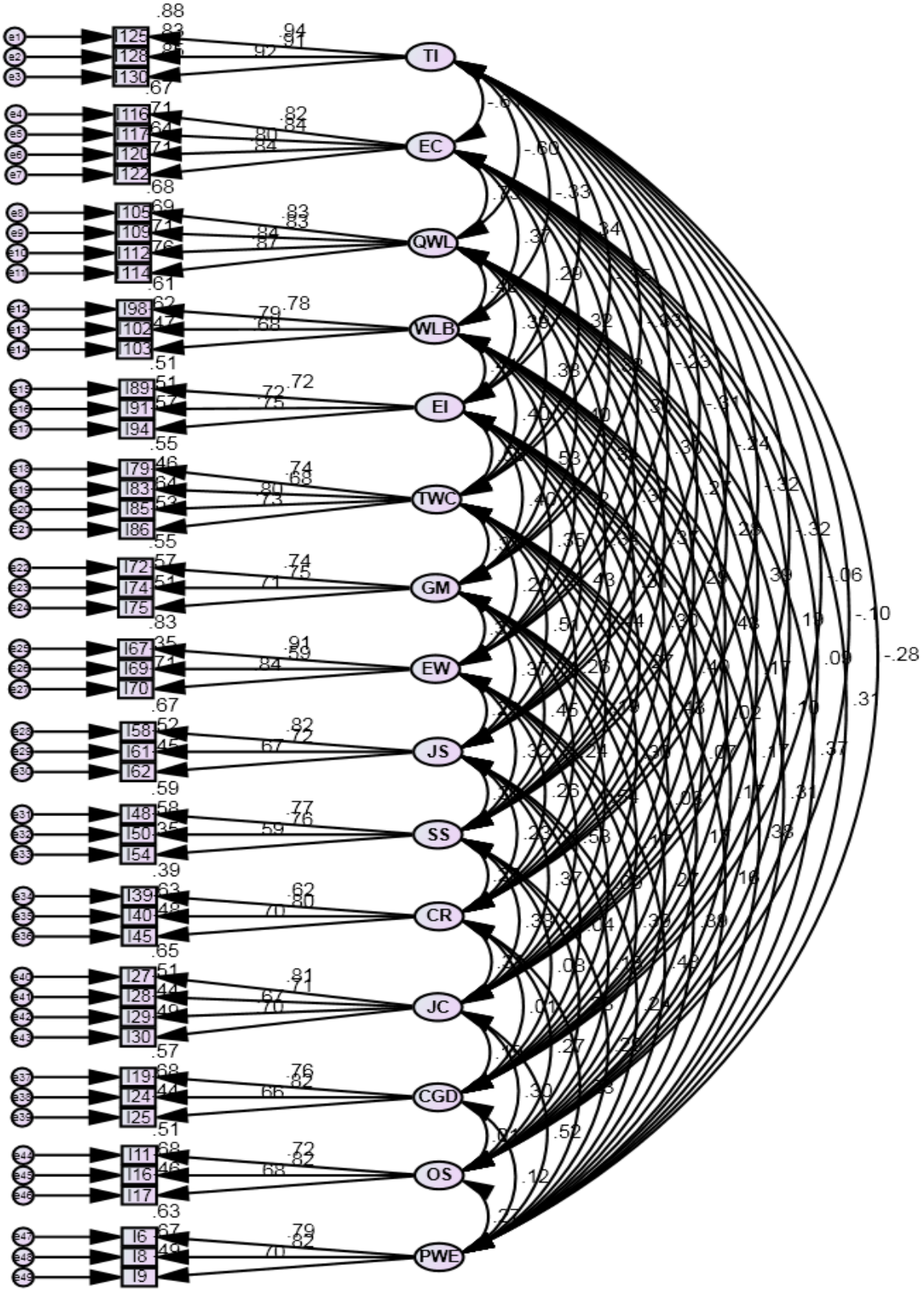


Figure 6.2: Measurement Model

Table 6.35: Model Fit Indices of the Measurement Model

Fit Index	*Observed Values*	*Threshold Values*
Absolute fit measures		
CMIN/DF	1.936	≤2**; ≤3*; ≤5*
GFI	.884	≥.90**,≥.80*
RMSEA	.039	≤.08
Incremental fit measures		
TLI	.926	≥.90**,≥.80*
CFI	.936	≥.90**,≥.80*
Parsimonious fit measures		
AGFI	.861	The higher, the better
PCFI	.813	The higher, the better
HOELTER		338 (.05), 348 (.01)

Acceptability: ** Acceptable, *Marginal.

Convergent and Discriminant Validity

Convergent validity concerns with the degree to which the indicators of a specific construct share a large proportion of variance in common. It is examined by observing the standardised factor loadings of the indicators, average variance extracted (AVE), and the composite reliability (CR). The indicators of each latent construct should ideally have a loading higher than .5 (Hair et al., 2014). AVE is the mean variance described by the indicators of a latent construct, and the score should be higher than .5 (Fornell and Larcker, 1981). CR is square of the sum of factor loadings with respect to the square of the sum of the factor loadings plus the sum of error variables and the score should be greater than .7 (Peterson and Kim, 2013).Table 6.36 depicts that the each indicator loaded significantly on the particular construct with standardised loadings higher than 0.5. The score of AVE and CR for all the latent constructs were also above the threshold value.

Table 6.36: Measurement Model Results

Constructs	*Measurement Items*	*Standardised Estimates*	*AVE*	*CR*	*p value*
PWE	I6	.794	.597	.816	***
	I8	.818			
	I9	.701			
OS	I11	.716	.548	.783	***
	I16	.822			
	I17	.676			
CGD	I19	.758	.563	.793	***
	I24	.822			
	I25	.663			
JC	I27	.805	.523	.813	***
	I28	.715			

	I29	.667			
	I30	.698			
	I39	.623			
CR	I40	.796	.502	.749	***
	I45	.695			
	I48	.767			
SS	I50	.763	.508	.753	***
	I54	.594			
	I58	.821			
JS	I61	.719	.547	.783	***
	I62	.671			
	I67	.910			
EW	I69	.590	.629	.831	***
	I70	.843			
	I72	.744			
GM	I74	.754	.543	.781	***
	I75	.712			
	I79	.739			
TWC	I83	.680	.546	.827	***
	I85	.800			
	I86	.731			
	I89	.716			
EI	I91	.716	.531	.773	***
	I94	.754			
	I98	.780			
WLB	I102	.787	.565	.795	***
	I103	.684			
	I105	.826			
QWL	I109	.830	.709	.907	***
	I112	.842			
	I114	.870			
	I116	.821			
EC	I117	.843	.683	.896	***
	I120	.801			
	I122	.840			
	I125	.938			
TI	I128	.910	.853	.946	***
	I130	.923			

*** $p < .001$

The discriminant validity is the degree to which a particular construct is distinct from other constructs. It is determined by comparing the shared variances between construct with the square root AVE of the specific construct. Table 6.37 exhibited that the square root of AVE of the constructs (in bold) is greater than the shared variance between the constructs which confirm the distinctiveness of each construct.

Table 6.37: Discriminant Validity

	PWE	OS	CGD	JC	CR	SS	JS	EW	GM	TWC	EI	WLB	QWL	EC	TI
PWE	**.773**														
OS	.267	**.741**													
CGD	.120	.008	**.751**												
JC	.515	.295	.186	**.723**											
CR	.232	.269	.009	.310	**.708**										
SS	.287	.226	.078	.382	.280	**.713**									
JS	.242	.126	.041	.369	.233	.302	**.740**								
EW	.484	.390	.002	.533	.263	.317	.291	**.793**							
GM	.392	.269	.171	.540	.237	.454	.366	.367	**.737**						
TWC	.159	.173	.030	.303	.189	.257	.511	.200	.373	**.739**					
EI	.377	.170	.069	.426	.272	.437	.435	.354	.395	.497	**.729**				
WLB	.311	.165	.018	.397	.296	.311	.337	.316	.531	.396	.406	**.752**			
QWL	.369	.096	.174	.432	.287	.366	.371	.340	.405	.376	.390	.400	**.842**		
EC	.309	.091	.188	.392	.284	.274	.299	.304	.318	.315	.293	.370	.727	**.826**	
TI	-.285	-.101	-.062	-.325	-.322	-.240	-.312	-.225	-.329	-.351	-.337	-.333	-.600	-.614	**.924**

Note: Diagonal elements (bold) in the correlation matrix of constructs are the square root of AVE values. For discriminant validity to be present the diagonal values must be greater than the off diagonal values

Thus, the measurement model of the study variables demonstrated adequate convergent and discriminant validity and was prepared for inclusion in the structural model.

6.3.3 Structural Model

The second step of SEM is to create the structural model to examine the hypothesised relationships in the research model. In this research, the structural model is discussed in three phases to validate the hypothesis of the study. The first phase investigates the association between the variables of job dimensions and QWL. The second phase explores the impact of the variables of HR interventions on QWL. The last phase involves mediation analysis with QWL and EC playing the role of mediator among the study variables.

Relationship between Job Dimensions and QWL

The first phase tested the model depicting the variables of the job dimensions (JD) namely physical work environment (PWE), occupational stress (OS), career growth and development (CGD), job characteristics (JC), compensation and rewards (CR) and social support (SS) and its relationship with QWL. Assessment of all fit indices with their threshold values, evidenced that the model has a good fit (χ^2 [209]=495.261, p<.001, χ^2/df=2.370, GFI=.936, RMSEA=.047, TLI=.939, CFI=.949, AGFI=.915, PCFI=.784, Hoelter =300 (.05), 319 (.01)). The model fit indices are summarised in table 6.38. The structural model with standardised path coefficients is shown in figure 6.3.

Table 6.38: Model Fit Indices of the Model Linking Job Dimensions and QWL

Fit Index	*Observed Values*	*Threshold Values*
Absolute fit measures		
CMIN/DF	2.370	≤2**; ≤3*; ≤5*
GFI	.936	≥.90**,≥.80*
RMSEA	.047	≤.08
Incremental fit measures		
TLI	.939	≥.90**,≥.80*
CFI	.949	≥.90**,≥.80*
Parsimonious fit measures		
AGFI	.915	The higher, the better
PCFI	.784	The higher, the better
HOELTER		300 (.05), 319 (.01)

Acceptability: ** Acceptable, *Marginal.

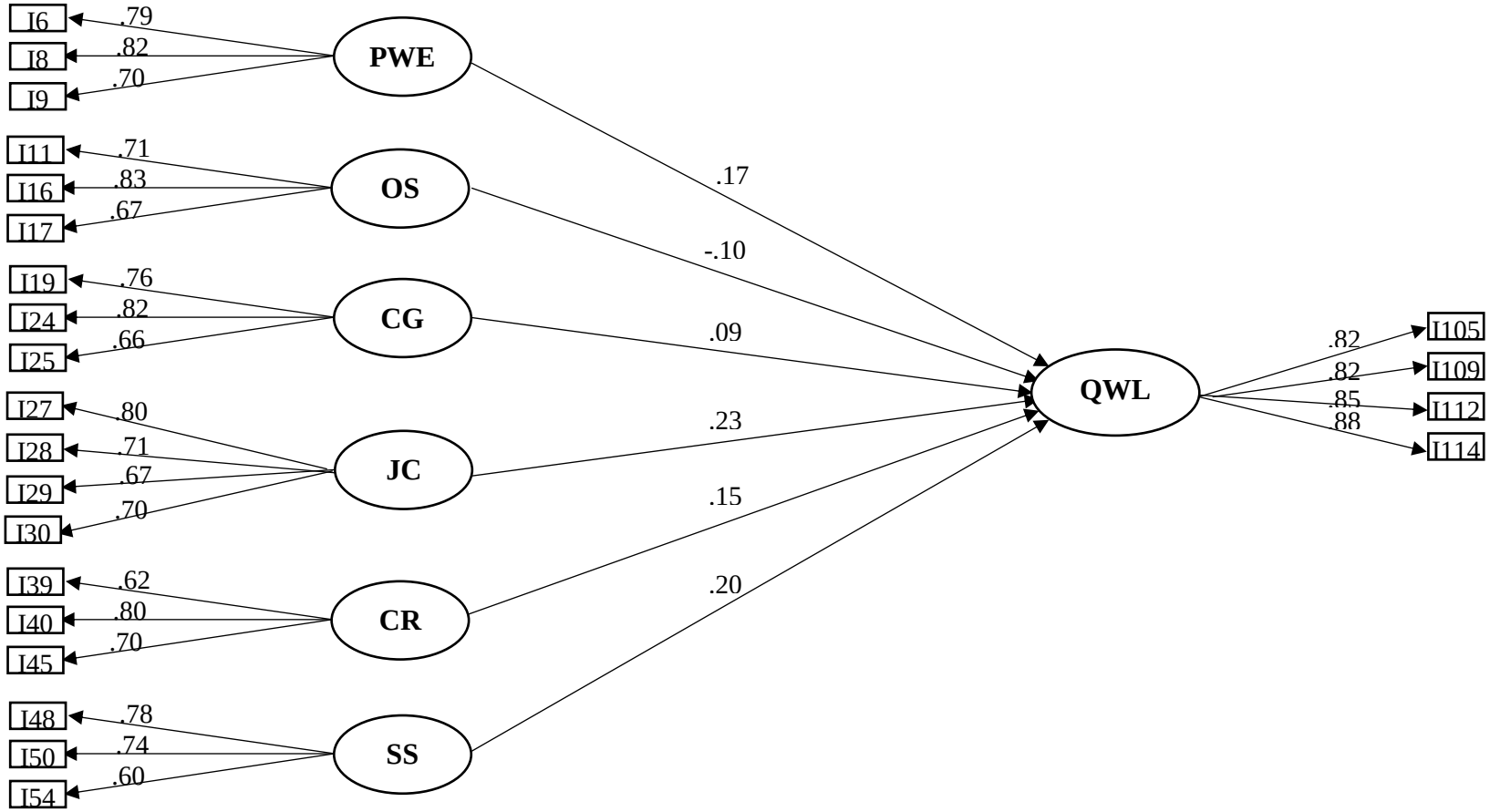


Figure 6.3: Model Linking Job Dimensions and QWL

The examination of the path coefficients of the structural model reveal that the effect of PWE on QWL was significant (β = .171, p<.01). Thus, H1a was supported. As hypothesised, OS had a negative and significant impact on QWL (β = - .104, p<.05). Therefore, H_{1b} was supported. CGD was found to be a significant factor in determining QWL (β = .094, p<.05), supporting hypotheses H_{1c}. JC had a positive and significant association with QWL (β=.232, p<.001). So, H_{1d} was supported. The impact of CR on QWL was positive and significant (β=.145, p<.01). Therefore H_{1e} was supported. Finally, SS appeared to be a significant determinant of QWL (β = .203, p <.001), supporting H_{1f}.

Relationship between HR Interventions and QWL

The second phase tested the model depicting the variables of HR interventions (HRI) namely job security (JS), employee welfare (EW), grievance management (GM), teamwork and communication (TC), empowerment and involvement (EI) and work-life balance (WLB) and its relationship with QWL. Assessment of all fit indices with their threshold values, evidenced that the model has a good fit (χ^2[209]=463.257, p<.001, χ^2/df=2.217, GFI=.937, RMSEA=.045, TLI=.951, CFI=.959, AGFI=.917, PCFI=.792, Hoelter=320 (.05), 341 (.01)). The model fit indices are summarised in table 6.39. The structural model with standardised path coefficients is shown in figure 6.4.

Table 6.39: Model Fit Indices of the Model Linking HR Interventions and QWL

Fit Index	*Observed Values*	*Threshold Values*
Absolute fit measures		
CMIN/DF	2.217	≤2**; ≤3*; ≤5*
GFI	.937	≥.90**,≥.80*
RMSEA	.045	≤.08
Incremental fit measures		
TLI	.951	≥.90**,≥.80*
CFI	.959	≥.90**,≥.80*
Parsimonious fit measures		
AGFI	.917	The higher, the better
PCFI	.792	The higher, the better
HOELTER		320 (.05), 341 (.01)

Acceptability: ** Acceptable, *Marginal.

The examination of the path coefficients of the structural model reveal that the effect of JS on QWL was significant (β = .118, p<.05). Thus, H_{2a} was supported. As hypothesised, EW had a positive and significant impact on QWL (β = .143, p<.001). Therefore, H_{2b} was supported. GM was found to be a significant factor in determining QWL (β = .140, p<.01), supporting hypotheses H_{2c}. TWC had a positive and significant

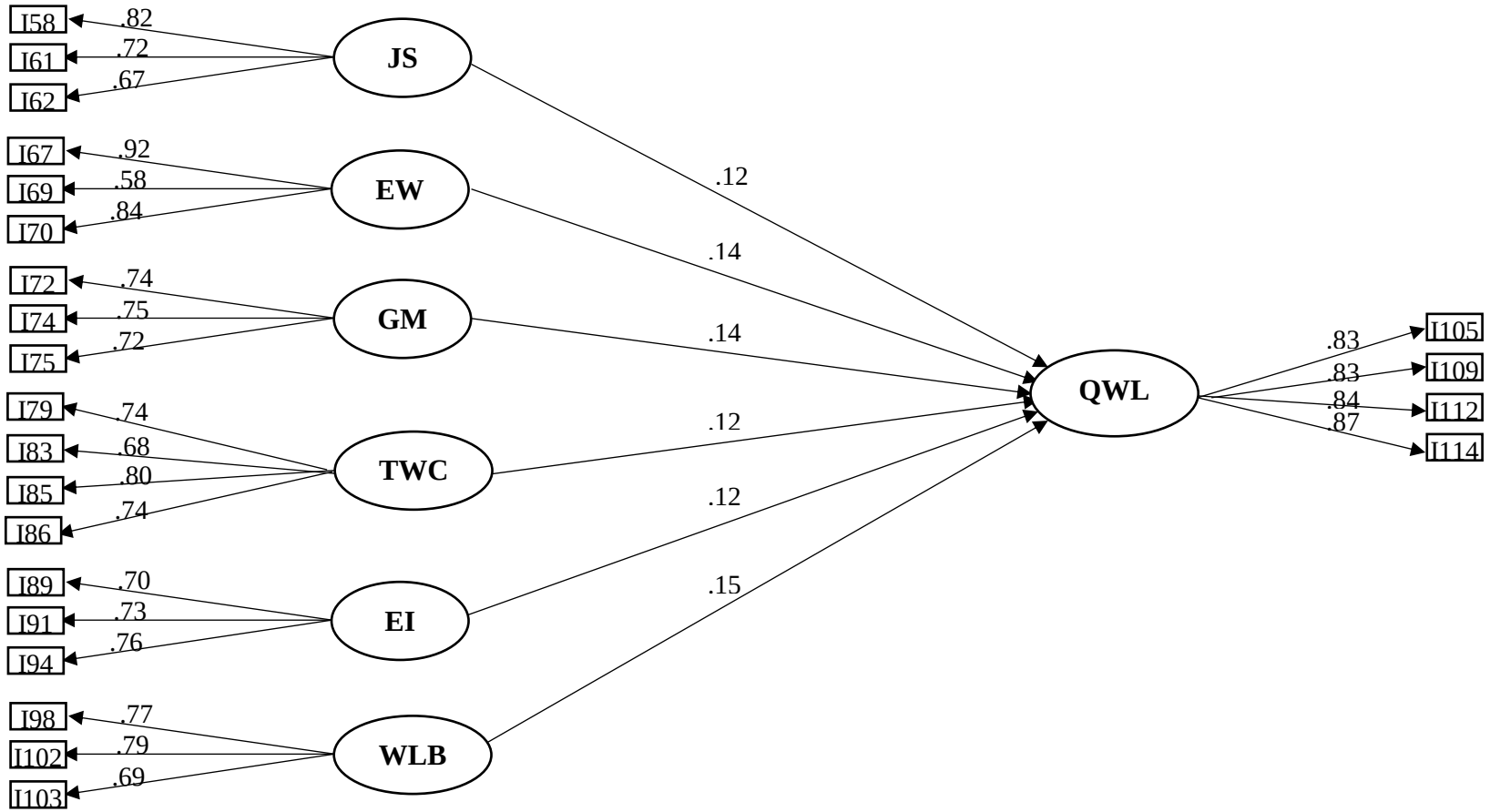


Figure 6.4: Model Linking HR Interventions and QWL

association with QWL (β=.118, p<.05). So, H2d was supported. The impact of EI on QWL was positive and significant (β=.116, p<.05). Therefore, H2e was supported. Finally, WLB appeared to be a significant determinant of QWL (β = .148, p<.01), supporting H_{2f}.

Mediation Analysis

The present study adopted the incremental approach of Baron and Kenny (1986) (illustrated in Chapter 5) to test the mediating relationships. Before conducting the mediation analysis, the six factors of JD namely PWE, OS, CGD, JC, CR and SS were reduced into six items to assess the overall JD construct by following the procedure suggested by Egan et al. (2004) and Smith et al. (2000). Similarly, the six factors of HRI namely JS, EW, GM, TWC, EI and WLB were reduced into six items to assess the overall HRI construct. between In the structural model, the mediating relationships were first examined individually in triads to reveal direct and indirect effects and test the robustness of mediators. In order to confirm with the first three steps of Baron and Kenny method of mediation analysis, the individual relationship between the independent and dependent variable, independent and mediating variable and mediating variable and dependent variables were examined. The results reveals that there is a significant linkage between QWL and TI (β = -.599, p<.001), QWL and EC (β = .726, p<.001), EC and TI (β = -.613, p<.001), JD and EC (β =.402, p<.001), JD and QWL (β =.466, p<.001), HRI and TI (β = -.504, p<.001), HRI and QWL (β =.604, p<.001), JD and TI (β = -.373, p<.001), and HRI and EC (β =.500, p<.001).

The first model examined the mediating role of employee commitment (EC) between the quality of work life (QWL) and turnover intention (TI). The model fit indices were acceptable (χ^2 [41]=167.907, p<.001, χ^2/df=4.095, GFI=.950, RMSEA=.071, TLI=.969, CFI=.977, AGFI=.920, PCFI=.728, Hoelter=207 (.05), 236 (.01)) (table 4.1). The analysis of the direct and indirect effects between QWL and TI in the mediated model (table 6.40), illustrates a substantial direct effect (-.325) and a significant indirect effect (-.274), confirming the partial mediation of EC. Figure 6.5, represents the structural model with significant path coefficients for the EC as a mediator between QWL and TI.

The second model investigated the relationship between JD and EC with QWL playing the role of mediator. The model fit indices were considerably good (χ^2 [74]=307.108, p<.001, χ^2/df=4.150, GFI=.927, RMSEA=.072, TLI=.931, CFI=.944, AGFI=.897, PCFI=.768, Hoelter =189 (.05), 209 (.01)) (table 4.1). The exploration of the

direct and indirect effects of JD and EC in the mediation model (table 6.40), illuminates a minor significant direct effect (.089) and a significant indirect effect (.322), which proves partial mediation of QWL. The significant path coefficients of the structural model for QWL as a mediator between JD and EC is denoted in figure 6.6.

The association between HRI and TI, when QWL acts a mediator is analysed in the third model. The model fit indices were adequate (χ2 [62]=201.987, p<.001, χ2/df= 3.258, GFI= .949, RMSEA =.061, TLI=.960, CFI=.968, AGFI=.925, PCFI=.770, Hoelter = 245 (.05), 274 (.01)) (table 4.1). The probing of the direct and indirect effects between HRI and TI in the mediation model (table 6.40), provides a significant direct effect (-.223) and indirect effect (-.281), signifying partial mediation of QWL. Figure 6.7 shows the structural model for QWL as a mediator between HRI and TI with significant path coefficients.

The fourth model assessed the mediating role of QWL between JD and TI. The model fit indices were satisfactory (χ^2 [62]=263.133, p<.001, χ^2/df=4.244, GFI=.933, RMSEA=.073, TLI=.942, CFI=.954, AGFI=.901, PCFI=.758, Hoelter=189(.05), 210 (.01)) (table 4.1). The analysis of the direct and indirect effects between JD and TI in the mediation model (table 6.40), illustrates a substantial direct effect (-.130) and a significant indirect effect (-.253), which indicates partial mediation of QWL. Figure 6.8, represents the structural model with significant path coefficients for the QWL as a mediator between JD and TI.

The fifth model investigated the relationship between HRI and EC with QWL playing the role of mediator. The model fit indices were considerably good (χ^2[74]= 257.871, p<.001, χ^2/df=3.485, GFI=.939, RMSEA=.064, TLI=.947, CFI=.957, AGFI=.914, PCFI=.778, Hoelter=225 (.05), 249 (.01)) (table 4.1). The exploration of the direct and indirect effects between HRI and EC in the mediation model (table 6.40), illuminates a minor direct effect (.095) and a significant indirect effect (.405), which proves full mediation of QWL. The significant path coefficients of the structural model for QWL as a mediator between HRI and EC is denoted in figure 6.9.

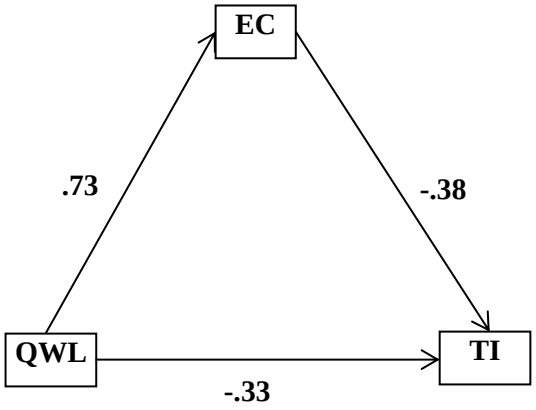


Figure 6.5: EC as a Mediator between QWL and TI

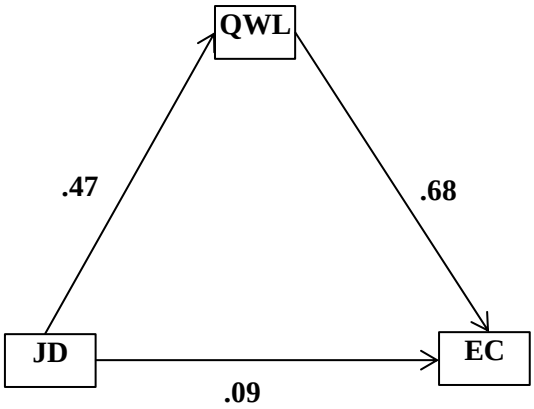


Figure 6.6: QWL as a Mediator between JD and EC

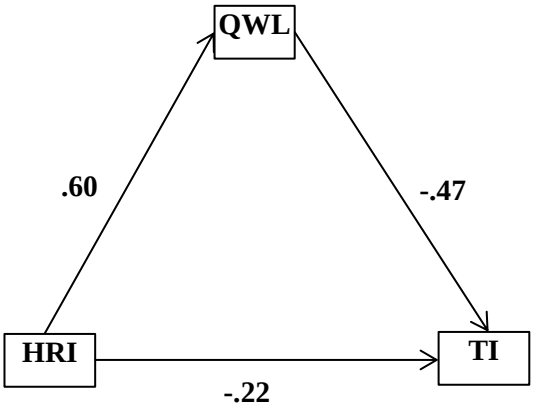


Figure 6.7: QWL as a Mediator between HRI and TI

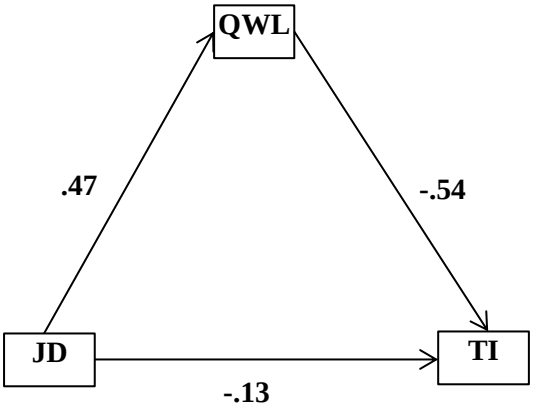


Figure 6.8: QWL as a Mediator between JD and TI

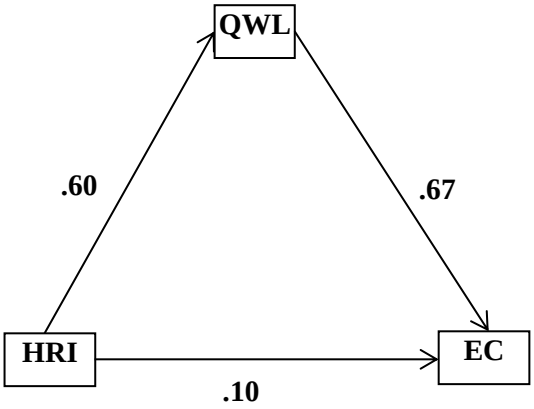


Figure 6.9: QWL as a Mediator between HRI and EC

Table 6.40: Path Coefficients and Indirect Effects for Individual Mediation Models

Relationship	***Total Effects***	***Direct Effect***	***Indirect Effect***
QWL→ TI (EC)#	-.599**	-.325**	-.274**
JD→ EC (QWL)#	.411**	.089*	.322**
HRI→ TI (QWL)#	-.504**	-.223**	-.281**
JD→ TI (QWL)#	-.382**	-.130**	-.253*
HRI→ EC (QWL)#	.500**	.095**	.405**

Mediator in parenthesis
**p<.001, *p<0.01

Table 6.41: Model Fit Indices of the Individual Mediation Models

Fit Index	*Observed Values*					*Threshold Values*
	Model 1	*Model 2*	*Model 3*	*Model 4*	*Model 5*	
Absolute fit measures						
CMIN/DF	4.095	4.150	3.258	4.244	3.485	≤2**; ≤3*; ≤5*
GFI	.950	.927	.949	.933	.939	≥.90**,≥.80*
RMSEA	.071	.072	.061	.073	.064	≤.08
Incremental fit measures						
TLI	.969	.931	.960	.942	.947	≥.90**,≥.80*
CFI	.977	.944	.968	.954	.957	≥.90**,≥.80*
Parsimonious fit measures						
AGFI	.920	.897	.925	.901	.914	The higher, the better
PCFI	.728	.768	.770	.758	.778	The higher, the better
HOELTER	207(.05) 236(.01)	189(.05), 209(.01)	245(.05), 274(.01)	189(.05), 210(.01)	225(.05), 249(.01)	

Model 1: EC as a mediator between QWL and TI; Model 2: QWL as a mediator between JD and EC; Model 3: QWL as a mediator between HRI and TI; Model 4: QWL as a mediator between JD and TI; Model 5: QWL as a mediator between HRI and EC.

Acceptability: ** Acceptable, *Marginal.

The research also investigated all the mediation relationship in a single structural model and estimated its path coefficients to validate the hypothesised research model. The model represents QWL and EC as the mediators, JD and HRI as the independent variables and TI as the dependent variable (figure 6.10). Thus, the model tested the direct relationship of JD and HRI with TI and the indirect relationship through the mediators, QWL and EC. The model fit indices show that the data fits considerably to the model. (χ^2 [221]=938.527, p<.001, χ^2/df =4.247, GFI= .888, RMSEA=.073, TLI=.888, CFI=.903, AGFI=.860, PCFI=.778, Hoelter=167 (.05), 177 (.01)). Table 6.42 presents the overall fit indexes of the model.

Table 6.42: Model Fit Indices of the Hypothesised Mediation Model

Fit Index	*Observed Values*	*Threshold Values*
Absolute fit measures		
CMIN/DF	4.247	≤2**; ≤3*; ≤5*
GFI	.888	≥.90**,≥.80*
RMSEA	.073	≤.08
Incremental fit measures		
TLI	.888	≥.90**,≥.80*
CFI	.903	≥.90**,≥.80*
Parsimonious fit measures		
AGFI	.860	The higher, the better
PCFI	.778	The higher, the better
HOELTER	167 (.05), 177(.01)	

Acceptability: ** Acceptable, *Marginal.

The coefficients of the hypothesised mediation model reveal both direct effect of the independent variable on the dependent variables as well as the indirect effect due to the presence of a mediator (table 6.43). The direct effects indicate that both JD (β = .207, p<.01) and HRI (β = .516, p<.001) relate positively with QWL. Consequently, the results accept and reinforce hypotheses H_1 and H_2. Further, QWL has a positive relationship with EC (β = .660, p<.001), but a negative relationship with TI (β = -.229, p<.001). Also, EC relates negatively with TI (β = -.350, p<.001). Moreover, QWL has an indirect effect on TI through the mediator EC (β = -.231, p<.01). So, the hypotheses H_3, H_4, H_5 and H_6 are supported, suggesting partial mediation. Similarly, JD has a positive, but insignificant relationship with EC (β = .60) and JD indirectly impacts EC with QWL acting as a mediator (β = .137, p<.01). So, hypothesis H_7 is rejected, and H_8 is accepted proposing full mediation. Likewise, HRI has a negative relationship with TI (β = -.172, p<0.01) and HRI indirectly relates to TI with QWL playing the role of mediator (β = -.261, p<.001). Consequently, the path coefficients support hypotheses H_9 and H_{10}, indicating partial mediation. Additionally, JD has a negative but insignificant relationship with TI (β = -.040 and JD has an indirect effect on TI through the mediator QWL (β = -.116, p<.01). Thus, hypothesis H_{11} is rejected, and H_{12} is accepted revealing full mediation. Lastly, HRI has a positive, but the insignificant relationship with EC (β = .067) and HRI indirectly impacts EC with QWL as a mediator (β = .340, p<.001). So, hypothesis H_{13} is not supported, and H_{14} is supported, suggesting full mediation.

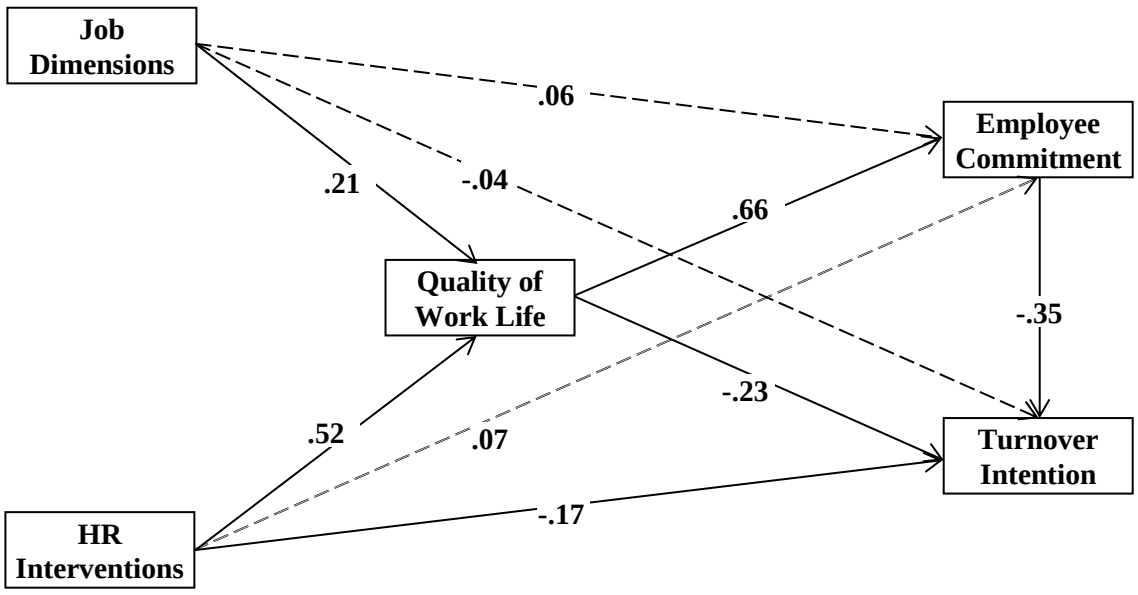


Figure 6.10: QWL and EC as a mediator between JD, HRI and TI.

Hence, the results of the hypothesised mediation model reinforced the partial mediating role of EC between QWL and TI, and the partial mediating role of QWL between HRI and TI, which was previously established in this research through individual mediation analysis. However, the partial mediating role of QWL between JD and EC, HRI and EC, and JD and TI, which was validated earlier in this research through individual mediation analysis was not reinforced, as the investigation of hypothesised mediation model confirmed the role of QWL as a full mediator between JD and EC, HRI and EC, and JD and TI.

Table 6.43: Direct, Indirect and Total Effects for Hypothesised Mediation Model

Hypothesized Relationship	*Total Effects*	*Direct Effect*	*Indirect Effect*	*Bootstrap 95% Confidence Interval*	*Sobel's Z value*	*Mediation Type*
JD→ QWL	.207*	.207*	-	-	-	-
HRI → QWL	.516**	.516**	-	-	-	-
QWL→ EC	.660**	.660**	-	-	-	-
EC→TI	-.350**	-.350**	-	-	-	-
QWL→ TI (EC)#	-.460**	-.229*	-.231**	(-.332, -.145)**	-5.592**	Partial
JD → EC (QWL)#	.197*	.060	.137*	(.052,.229)*	4.248**	Full
HRI → TI (QWL)#	-.433**	-.172*	-.261**	(-.351,-.184)**	-3.474**	Partial
JD → TI (QWL)#	-.156*	-.040	-.116*	(-194,-.048)*	-2.888*	Full
HRI → EC (QWL)#	.408**	.067	.340**	(.257,.433)**	7.379**	Full

mediator in parenthesis, ** p < .001, * p < .01, bootstrap results based on n=10000

Bootstrapping is a popular method to examine the indirect effects of a mediator using the standard errors and confidence interval estimates (Memon et al. 2016). In this study, bootstrapping was performed with 10000 samples by using bias corrected confidence intervals at 95 percent to overcome the abnormality in the data and confirm the indirect effects. The results indicated that upper and lower levels of the indirect effects (table 6.43) did not include zero and the average bootstrap based estimates were close to the ML estimates for all path coefficients. Further, the Z value derived from Sobel's test for all the mediating relationships were significant. Thus, the mediation results were reinforced.

6.4 Findings of the Study

The analysis of the data acquired from health care units provided meaningful insights on the job dimension, HR interventions, employee commitment and turnover intention of

health care employees in Odisha. Further, the research investigates the direct and indirect association among the study variables. The preliminary analysis discloses that the means of all the study variables were between 2.4 to 3, except occupational stress and turnover intention for which the means were above 3.7. Thus, the health care employees rated their job characteristics, compensation and rewards, social support, job security, employee welfare, grievance management, teamwork and communication, empowerment and involvement, work-life balance at low levels; physical work environment, and career growth and development at moderate levels; and occupational stress at high levels. Further, the health care employees perceived a low degree of QWL and employee commitment and high level of turnover intention. Thus, proper actions should be taken to enhance the perception of job dimensions and HR interventions to augment the QWL and employee commitment as well as reduce turnover intention of health care employees.

Table 6.44: Inferences drawn on Hypothesis Testing

Hypotheses	*Relationship*	*Standardised β Coefficients*	*Significance*	*Result*
H_1	**JD → QWL**	.207	**	Accepted
H_{1a}	**PWE → QWL**	.171	**	Accepted
H_{1b}	**OS → QWL**	-.104	*	Accepted
H_{1c}	**CGD → QWL**	.094	*	Accepted
H_{1d}	**JC → QWL**	.232	***	Accepted
H_{1e}	**CR → QWL**	.145	**	Accepted
H_{1f}	**SS → QWL**	.203	***	Accepted
H_2	**HRI → QWL**	.516	***	Accepted
H_{2a}	**JS → QWL**	.118	*	Accepted
H_{2b}	**EW → QWL**	.143	***	Accepted
H_{2c}	**GM → QWL**	.140	**	Accepted
H_{2d}	**TWC → QWL**	.118	*	Accepted
H_{2e}	**EI → QWL**	.116	*	Accepted
H_{2f}	**WLB → QWL**	.148	**	Accepted
H_3	**QWL→ EC**	.660	***	Accepted
H_4	**QWL→TI**	-.229	**	Accepted
H_5	**EC →TI**	-.350	***	Accepted
H_6	**QWL→ TI (EC)#**	-.231	***	Accepted
H_7	**JD → EC**	.060	.193	Rejected
H_8	**JD → EC (QWL)#**	.137	**	Accepted
H_9	**HRI → TI**	-.172	**	Accepted
H_{10}	**HRI → TI (QWL)#**	-.261	***	Accepted
H_{11}	**JD → TI**	-.040	.412	Rejected
H_{12}	**JD → TI (QWL)#**	-.116	**	Accepted
H_{13}	**HRI → EC**	.067	.218	Rejected
H_{14}	**HRI → EC (QWL)#**	.340	***	Accepted

mediator in parenthesis, *** p < .001, ** p < .01, * p < .05

Table 6.44 summarises the inferences drawn from the hypotheses testing in the study. It was found that the job dimensions have a significant association with QWL of employees in health care units. Further, the variables of job dimensions like physical work environment, career growth and development, job characteristics, compensation and rewards, and social support have a positive and substantial effect on QWL. On the contrary, QWL is negatively and noticeably influenced by the occupational stress of health care employees. Therefore, hypothesis H_1 and its sub-hypotheses H_{1a}, H_{1b}, H_{1c}, H_{1d}, H_{1e}, and H_{1f} were accepted. Subsequently, QWL of employees has a positive and significant linkage with the HR interventions prevailing in the health care units. Additionally, HR interventions comprising of job security, employee welfare, grievance management, teamwork and communication, empowerment and involvement, and work-life balance have a positive and robust impact on QWL. Thus, the hypothesis H_2 and its sub-hypotheses H_{2a}, H_{2b}, H_{2c}, H_{2d}, H_{2e}, and H_{2f} were supported. Furthermore, QWL was substantially linked with the commitment levels of the employees in health care organisations. Conversely, QWL and employee commitment were negatively related to the turnover intention of the employees. Besides, employee commitment partially mediated the relationship between QWL and turnover intention. Therefore, hypotheses H_3, H_4, H_5 and H_6 were accepted.

The results divulged that the job dimensions when represented as a single variable in the hypothesised mediation model, did not have a noticeably direct influence on employee commitment and turnover intention and both the relationship was fully mediated by QWL. Likewise, HR interventions, when represented as a single variable in the hypothesised mediation model did not have a substantial direct effect on employee commitment but had a direct and significant relationship with turnover intention. Moreover, QWL acted as a full mediator between the relationship of HR interventions and employee commitment and as a partial mediator between HR interventions and turnover intention. Thus, hypotheses H_8, H_9, H_{10}, H_{12}, H_{14} were accepted and H_7, H_{11}, H_{13} were rejected. Finally, the outcomes explicate that QWL is a vital element in the context of health care employees. The perceived QWL of health care employees in the study is poor, which is influenced by the job dimensions and HR interventions. Subsequently, the low level of QWL is reducing the employee commitment and increasing the turnover intention of employees in health care units.

6.5 Discussions

The results of the present study extend the previous research findings by enabling a holistic understanding of how job dimensions and HR interventions influence QWL, employee commitment and turnover intention in health care employees. More specifically, the results indicate that when employees are not satisfied with their job dimensions and the HR interventions prevailing in the health care units, they perceive a low degree of QWL. Such perception of poor QWL will diminish the employee's feelings of connection and belongingness with their organisation. Furthermore, when employees have poor commitment levels, they will be more inclined to entertain thoughts of leaving the organisation. Overall, the findings suggest that the current situation of job dimensions and HR interventions in private health care units of Odisha is disabling the QWL and commitment of employees and enabling their propensity to leave the organisation.

The validation of the hypothesised research model highlights that job dimensions have a significant relationship with QWL of health care employees. Job dimensions comprise of variables such as physical work environment, occupational stress, career growth and development, job characteristics, compensation and rewards, and social support. H_{1a} probed into the power of physical work environment to forecast QWL and found a positive and significant relationship between both the variables. Thus, results of the study are in congruence with previous studies (Schmalenberg and Kramer, 2008; Ashkanasy et al., 2014; Nowrouzi et al., 2015) and showed that the work environment that is devoid of right structures and practices can make the work life of health care employees miserable. The empirical analysis divulges a substantially negative connection between occupational stress and QWL as professed in hypothesis H_{1b}. The results were found to be consistent with the literature (Dolan et al., 2008; Mosadeghrad et al., 2011; Ahmad, 2013) and established that health care employees are prone to high level of stress, which can pave the way for low levels of QWL. The study reveals that opportunities for career growth and development are a significant predictor of QWL as proposed in hypothesis H_{1c}. The result corroborates with the studies by Donaldson and Bligh (2006), Gesme et al. (2010) and Parsa et al. (2014) and recognises that meeting of the employee's expectation for career advancement is an important determinant of QWL. Hypothesis H_{1d} supports the argumentation that job characteristics exhibit an impact on QWL. The results of the study are in agreement with the works of Gupta and Hyde (2013), Zakerian et al. (2014) and Birtch et al. (2016) and reveal that the cognitive interpretation and appraisal of job

characteristics defines the perceived QWL of an employee. The exploration of the primary data in the research ascertains that the compensation and reward system influences the QWL as proposed in H_{1e}. Empirical evidence from prior studies by Pratheepkanth (2011), Sharma and Jyoti (2013), Bustamam et al. (2014) and Lee et al. (2015) supports this proposition and identifies that dissatisfaction with pay and rewards can be detrimental to QWL of employees. The investigation of H_{1f} has evidenced that social support has a considerable influence on QWL of health care employees. The results confirm with the seminal works of Vagharseyyedin et al. (2011a), Gillet et al. (2013), and Converso et al. (2015), and establish that poor social support perceived by the employees will lead to reduced QWL.

The examination of the hypothesised research model explicitly explains the substantial role of HR interventions for better QWL of health care employees. HR interventions include variables such as job security, employee welfare, grievance management, teamwork and communication, empowerment and involvement, and work-life balance. The empirical analysis of H_{2a} divulges a substantially positive linkage between job security and QWL of the respondents. The results were found to be consistent with the literature (Hosseinabadi et al., 2013; Lee et al., 2013; Moradi et al., 2014; Borhani et al., 2016) and identify that health care employees experience high job insecurity, which can lead to low QWL. The study highlights that employee welfare is a significant determinant of QWL as proposed in hypothesis H_{2b}. The results corroborate with the studies by Lin et al. (2011), Hassan (2014), Singh et al. (2015) and Bhattacharjee (2015) and recognise that the mismatch of employee welfare measures with the expectation of employees is a precursor of lower perceived QWL. Hypothesis H_{2c} supports the argumentation that grievance management system exhibits a significant impact on QWL. The results of the study are in agreement with the works of Joshi (2007), Saklani (2010) and Moghimi et al. (2013) and reveal that a reactive or a non-functional grievance management system may be linked with the lower level of QWL. The exploration of the primary data in the research ascertains that the teamwork and communication system influences the QWL of health care employees as proposed in H_{2d}. Empirical evidence from prior studies by Yeo and Li (2011), Rai (2013), Brunault et al. (2014) and Howe (2014) supports this proposition and shows that deficit of teamwork and open communication system can be detrimental to QWL of employees. The investigation of H_{2e} has evidenced that empowerment and involvement has a considerable influence on QWL of health care employees. The results confirm with the seminal works of

Laschinger (2008), Caspar and O'Rourke (2011), Coburn and Hall (2014) and Sheikhepoor and Sheikhepoor (2015) and establish that absence of empowerment and involvement in the workplace can lead to reduced QWL of employees. H_{2f} probed into the power of work-life balance measures to predict QWL and found a positive and significant relationship between both the variables. Thus, results of the study are in congruence with previous studies (Beham and Drobnic, 2010; Díaz-Chao et al., 2014; Harris et al., 2015 and Mehdizadeh, 2016) and presents that reduced work-life balance may lead to low levels of QWL.

The results displayed the significant and positive effect of QWL on employee commitment. The exploration of hypothesised research model also demonstrates the negative relationship of QWL and employee commitment with turnover intention. These arguments were opined in H_3, H_4 and H_5 and corroborated with the extant research that examined the robust association between QWL and employee commitment (Farjad and Varnous, 2013; Farid et al., 2015; and Eren and Hisar, 2016), negative linkage between QWL and turnover intention (Almaki et al., 2012; Lee et al., 2013; Surienty et al., 2014; Lee et al., 2015), and inverse relation of employee commitment with turnover intention of health care employees (Chang et al., 2007; Liou, 2009; Joo and Park, 2010; Stanley et al., 2013). Additionally, the result also establishes the partial mediating effect of employee commitment on the relationship between QWL and turnover intention. This finding verifies the Hypothesis H_6 and confirms with the studies of Huang et al. (2007) and Zhao et al. (2013). Thus, the poor perception of QWL directly influences the turnover intention as well as indirectly affects the turnover intention through the low commitment of health care employees.

Hypothesis H_7 endorses the noteworthy relationship between job dimensions and employee commitment. In the hypothesised research model that represents a cohesive relationship between all the study variables, job dimensions do not relate significantly with employee commitment. On the contrary, testing the association in isolation revealed a significant relationship between both the variables. The overall research model examines job dimensions as an integrated variable, which includes physical work environment, occupational stress, career growth and development, job characteristics, compensation and rewards, and social support. Previous studies have verified the effect of specific variables of job dimension on employee commitment (McGuire and McLaren, 2009; Klassen and Chiu, 2011; Bulut and Culha, 2010; Hsu and Liao, 2016; Wang et al., 2010; Rousseau and Aubé, 2010). The examination of the combined effect of the entire job dimensions

variables taken in this study on employee commitment has not been tested in earlier research and is novel in contemporary literature. Additionally, the study confirms the role of QWL as a full mediator in the relationship between job dimensions and employee commitment as proposed in H_8. Thus, job dimensions does not have a direct relationship with employee commitment but has an indirect relationship through the mediator QWL.

Correspondingly, the significant linkage between HR interventions and turnover intention is suggested in hypothesis H_9. In the posited research model, HR interventions have a considerable association with turnover intention. The model examines HR interventions as a cohesive variable, which includes job security, employee welfare, grievance management, teamwork and communication, empowerment and involvement, and work-life balance. Earlier works have proved the influence of specific HR interventions variables on turnover intention (Mauno et al., 2014; Carraher, 2011; Haines et al., 2010; Osman et al., 2016; De Villiers and Stander, 2011; Shankar and Bhatnagar, 2010). The investigation of the integrated impact of all the variables of HR interventions included in this research on turnover intention has not been established in earlier works and is innovative in the present research scenario. Moreover, the study endorses the partial mediating role of QWL in the relationship between HR interventions and turnover intention as specified in H_{10}. Thus, HR interventions has a direct relationship with turnover intention, as well as an indirect relationship through the mediator QWL.

Similarly, Hypothesis H_{11} notifies the significant association of job dimensions with turnover intention. The results of the postulated research model reveal an insignificant linkage of job dimensions with turnover intention. Nevertheless, the examination of the relationship between both the variables in separation divulged a strong connection. Previous studies have verified the effect of specific job dimension variables on turnover intention (Yoon and Kim, 2010; Applebaum et al., 2010; Weng and McElroy, 2012; Chang et al., 2013; Bryant and Allen, 2013; Newman et al., 2011). The examination of the collective influence of the broad variables of job dimensions taken in this study on turnover intention has not been recognised in past research and is unique in contemporary research. Additionally, the study establishes H_{12} suggesting the full mediation of QWL in the relationship between job dimensions and turnover intention. Thus, job dimensions does not have a direct relationship with turnover intention but has an indirect relationship through the mediator QWL.

Likewise, the substantial relationship of HR interventions with employee commitment is opined in hypothesis H_{13}. In the conjectured research model, HR

interventions do not have a significant association with turnover intention. In contrast, analysing the relationship discretely revealed a considerable linkage between both the variables. Former studies have demonstrated the impact of specific HR interventions variables on employee commitment (Elst et al., 2011; Ahmad and Scott, 2015; Farndale et al., 2011;Brunetto et al., 2013; Albrecht and Andreetta, 2011; Caillier, 2013). The exploration of the assimilated effects of all the variables of HR interventions taken in this study on employee commitment has not been examined in prior literature and is new to the existing studies. Moreover, the study confirms H_{14} signifying that QWL fully mediates the relationship between HR interventions and employee commitment. Thus, HR interventions does not have a direct relationship with employee commitment but has an indirect relationship through the mediator QWL.

This research work explores the mediating mechanisms of QWL as suggested in H_8, H_{10}, H_{12}, and H_{14} in the context of Indian health care. The investigation of the mediating role of QWL between the relationship of job dimension and employee commitment, HR interventions and turnover intention; job dimension and turnover intention; and HR interventions and employee commitment has not been carried out in previous research and is unique in contemporary literature. Extant works in diverse settings have verified the role of QWL as mediators between emotional labour and work-family interference (Cheung and Tang, 2009), organisational justice and job satisfaction (Totawar and Nambudiri, 2014), and high-performance work systems and work performance (Shen et al., 2014). Therefore, this research portrays QWL as a distinct variable, which can be stimulated by job dimensions and HR interventions. Moreover, the perceived QWL can influence the commitment levels and turnover intention of health care employees in private health care organisations.

Hence, QWL of employees is a prerequisite in health care organisations for developing committed employees and reducing their intention to quit. Further, the turnover intention of frontline employees in health care units is a vital predictor of actual turnover, which poses a threat to the quality of service delivery and overall performance of the organisation. Health care organisations worldwide are designing innovative strategies to enhance QWL and reduce the turnover of employees. However, extant literature showcase that the prominence of QWL practices is scarce in Indian health care organisation leading to high employee turnover intention. This research investigates the impact of QWL on the turnover intention of health care employees in an Indian State (Odisha). Specifically, the work examines the influence of job dimensions and HR

interventions on QWL as well as the linkages of QWL with employee commitment and turnover intention. Moreover, the study explicates the underlying mechanisms of QWL and employee commitment as mediators among job dimension, HR interventions and turnover intention. The outcomes of the research support contemporary literature and provide new insights in the Indian health care context.

Chapter 7

Conclusion

The final chapter of this thesis discusses the summary of the research and presents a set of recommendations for improving the QWL of employees in Indian private health care sector. It also demonstrates the theoretical, practical and methodological contribution of this study. Further, it illustrates the research limitations and proposes the directions for future research. Finally, this chapter provides a general conclusion for the whole study.

7.1 Summary

The central focus of the study was to conduct an examination of the impact of perceived QWL on the turnover intention of health care employees working in private health care units of Odisha. An opinion survey was conducted through a structured questionnaire to elicit the responses of health care employees on the study variables. Subsequently, the primary data was analysed using statistical tools for the derivation of the study outcomes. Finally, the specific objectives of the study were achieved in the course of the research work.

The first objective was to study the influence of various job dimensions on the degree of QWL of the health care employee in India. Six job dimensions were deduced from the extant literature that played a crucial role towards augmenting the QWL of health care employees. These were physical work environment, occupational stress, career growth and development, job characteristics, compensation and rewards, and social support. The empirical analysis revealed that physical work environment has the ability to forecast QWL; there is an inverse relationship between occupational stress and QWL; and opportunities for career growth and development are a significant predictor of QWL. Further, job characteristics exhibit a positive influence on QWL; compensation and rewards is a significant predictor of QWL; and social support has a considerable impact on QWL.

The second objective was to investigate the role of HR interventions towards enhancing the QWL of Indian health care employees. Six HR interventions such as job security, employee welfare, grievance management, empowerment and involvement, teamwork and communication, and work-life balance, were derived from previous works

that were evidenced to positively influence the QWL of health care employees. The results of the data analysis divulged that there is a substantially positive linkage between job security and QWL; employee welfare is a significant determinant of QWL; and grievance management system exhibits a significant impact on QWL. Additionally, teamwork and communication system positively influences the QWL; empowerment and involvement is a significant predictor of QWL; and work-life balance measures positively forecast QWL.

The third objective was to confirm the role of employee commitment as an outcome of perceived degree of QWL of employees. The results displayed that there is a significant and positive effect of QWL on employee commitment. The fourth objective was to measure the impact of perceived QWL on turnover intention of employees working in private health care units in India. The findings disclosed a negative relationship of QWL with the turnover intention of employees. The fifth objective was to assess the mediating role of employee commitment in between perceived QWL and turnover intention. The exploration of primary data established that employee commitment plays a partial mediator in the association of QWL and turnover intention of employees.

The fifth objective was to explore the mediating effect of QWL among job dimensions, HR interventions, employee commitment and turnover intention. The outcomes of the hypotheses testing established that QWL acts a full mediator in the relationship between job dimensions and employee commitment; and there exists a partial mediating role of QWL in the relationship between HR interventions and turnover intention. Further, the results endorsed that there is full mediation of QWL in the relationship between job dimensions and turnover intention; and perceived QWL fully mediates the relationship between HR interventions and employee commitment.

The final objective was to propose a comprehensive theoretical model exhibiting the relationship between QWL, employee commitment and turnover intention based on the empirical findings. The proposed research model was validated through exploration of primary data. The model confirms that job dimensions and HR interventions significantly influence the perceived QWL of health care employees. Further, perceived QWL has a positive relationship with employee commitment and negative relationship with the turnover intention of health care employees. Additionally, job dimensions does not have a direct influence on employee commitment and turnover intention of health care employees but has an indirect effect through perceived QWL of employees. Moreover, HR interventions do not directly influence employee commitment but has an indirect

impact through the perceived QWL of health care employees. Lastly, the HR intervention has a direct effect on turnover intention as well as an indirect influence on turnover intention through the perceived QWL of health care employees.

7.2 Suggestions

The current research witnessed that the health care employees working in the private health care units of Odisha demonstrated a low level of perceived QWL and high level of turnover intention. The present work evidenced the importance of better QWL in reducing the employee turnover in Indian health care sector. Thus, this study proposes the following recommendations based on the empirical findings:

- The physical work environment plays a crucial role in determining the perceived QWL of employees in the health care organisations. Employees can experience better QWL, when there are suitable seating arrangements; the adequate level of temperature and lighting is maintained; ample storage areas are provided; the workspace can be personalised; and the workplace is free from excessive noise. Further, QWL may also be enhanced by ensuring availability of supplies and equipment; sustaining an environment with low levels of verbal abuse and violence; and promoting a clean and healthy work setting.
- The research reinforced the fact that low occupational stress can lead to better QWL of health care employees. The organisation should work towards reducing the feeling of nervousness, strain, frustration, weariness at work for augmenting the perceived QWL. Further, the employers can instil better QWL by endorsing moderate job pressure; setting achievable deadlines; and allocating manageable workload to the employee.
- The study explored the substantial effect of career growth and development prospects on the perceived QWL of health care employees. The employees who are offered with better opportunities for career progression; appropriate career counselling and assistance; along with leaves and financial support for higher education may experience enhanced QWL. Further, the organisations should conduct a systematic assessment of skills and abilities; encourage the development of new skills; provide continuous feedback and mentoring; and conduct adequate job-related training to enrich the degree of QWL.

- The results emphasised on the job characteristics of employees to enhance the perceived QWL in health care units. Therefore, the assigned work of the employees should be significant; challenging and interesting; as well as facilitate them to learn new skills; and perform a variety of task. Further, organisations can encourage autonomy; enable accomplishment of tasks with minimum interference; and mandate the use of protective gears during exposure to hazardous materials to boost the QWL of employees.
- The findings of the research supported the proposition that compensations and rewards have a powerful effect on the QWL of health care employees. Thus, organisations should ensure that the pay of the employee matches with the market rates; includes adequate allowances; is based on qualification and experience; and increases to a fair extent periodically. Further, the employees should be assigned a position that in congruence with his/her education and training; and receive accurate information regarding the prospects and criteria for promotion. Furthermore, the adoption of a fair reward system that includes both financial and non-financial rewards can ensure positive QWL of employees. Hence, the health care organisations should emphasise on appropriate compensation and reward strategy to promote a sense of achievement, expectancy and equity among employees to increase the degree of QWL.
- The research identified the significant role of social support towards augmentation of the QWL of health care employees. Therefore, the superiors in the organisation should encourage the employees to share problems; and provide adequate help and support. Further, the co-workers should act as a second family for the employees by being helpful; sharing knowledge; and provide constructive criticism. Thus, the organisations can propagate a collaborative work culture that ensures pleasant relationships between the employee, superiors and co-workers for improvement of QWL.
- The study analysed that feeling secured about one's jobs can influence the QWL of health care employees. Thus, employers should offer stable positions; inform the employees regarding any undesirable changes; spread the sense of job security; and strengthen the psychological contract of the employees to enhance the QWL and reduce turnover of health care employees. Thus, a balanced power relation

between employers and employees can reduce the threats of being jobless and give stable employment status to employees leading to better QWL.

- The outcome of the study stressed on the promotion of employee welfare to enhance the QWL of health care employees. The organisation should offer housing facilities; conveyance facility; canteen; health care services for employee and their family; as well as provide compensation for workplace injury to bequeath the employee with positive QWL. Further, adequacy of social security measures like provident fund and gratuity can also improve the perceived QWL. The employers should conduct periodic consultation and reviews and operationalise the welfare provisions that are in congruence with the requirements of the employee to enrich their QWL.
- The research confirmed the substantial role of grievance management towards augmentation of QWL of health care employees. The grievance management system in the organisation, whether formal or informal should encourage the free expression of grievances; pay attention to reported grievances; conduct an adequate enquiry; and adhere to the norm of confidentiality on reported complaints to positively influence the QWL of employees. Further, the management should ensure transparency in redressal procedures, fairness in decisions, and track the implementation of the decisions. Thus, employers must design appropriate guidelines, and staff support structures to assist in suitable grievance redressal and improve the QWL of health care employees.
- The teamwork and communication system plays a crucial role in enhancing the QWL of employees in the health care organisations. The organisations should embed work teams that have members with complementary skill set; and who support and respect, and exchange of positive feedback with each other. Further, the organisation should foster an open communication system with standardised methods of information sharing to augment the QWL of employees.
- The result of the study highlights on the empowerment and involvement of employees to enhance the perceived QWL in health care units. The organisations should ensure that employees have ample opportunities to develop their competence; are aware of the organisational values and goals; are able to access resources; and have clarity of roles and responsibilities. Further, the management should welcome the initiatives from the employees; ensure involvement in

decision making process; and have active forums where employees can share their opinions. Consequently, employers should take holistic approaches to make the employees feel empowered and involve them in the organisational functioning to bestow them with better QWL.

- The study strengthened the notion that work-life balance has a profound effect on the QWL of health care employees. The health care organisations should ensure adequacy of leave entitlements; provision of maternity/ paternity benefits; provision of child care/elderly care; flexible work timings; regular rotation of shifts; and rationalised workload to boost the morale of the employees and augment their QWL.
- The proposed job dimensions and HR interventions are vital to augment the QWL of employees. However, they must be tailored according to the priorities, characteristics and context of the health care organisations to be successful. Further, the enhanced QWL of employees can improve the commitment level and lower the turnover intention of employees, which will eventually lead to reduced employee turnover.

7.3 Contributions of the Study

This research has made significant theoretical and practical contributions, which are illustrated below:

7.3.1 Theoretical Implications

- The review of the extant literature in the area of job dimensions and QWL revealed several studies that have explored the role of the physical work environment, occupational stress, career growth and development, job characteristics, compensation and rewards and social support towards better QWL of employees. This study established that job characteristics had the highest influence on the QWL of health care employees. Further, this research proved the combined role of all job dimension variables on QWL, employee commitment and turnover intention of health care employees, which are not evidenced in previous studies.
- Similarly, the exploration of contemporary research on HR interventions and QWL divulged several works that have investigated the role of teamwork and

communication, and work-life balance towards better QWL of employees. This study examined the effect of job security, employee welfare, grievance management, and empowerment and involvement on QWL of health care employees. These associations were scarcely examined in extant literature. The findings evidenced the highest impact of work life balance on QWL of health care employees. Moreover, this research established the integrated effect of all the variables under HR interventions on QWL, employee commitment, and turnover intention of health care employees. This relationship has not been testified in earlier works and is novel in existing studies.

- This research work has deliberated a holistic model that comprised of job dimensions, HR interventions, QWL, employee commitment and turnover intention. In this model, there is an association between QWL and turnover intention, while job dimensions and HR interventions are the predictors of QWL; and employee commitment, and turnover intention are the outcomes of QWL. Such a model that collectively examines all the above relationships is unique in the existing literature relating to the QWL of health care employees.
- The study advanced the existing works on the mediating mechanism of QWL, which was formerly corroborated in three studies on teachers, accountants, and marketing executives. Further, this study confirms the simultaneous mediating role of QWL between job dimensions and employee commitment, HR interventions and turnover intention, job dimensions and turnover intention, and HR interventions and employee commitment in the context of health care employees. It also proves that employee commitment is a mediator between QWL and turnover intention. Thus, this research makes an innovative attempt to test five mediating relationships simultaneously in the hypothesised model.
- The majority of QWL and turnover studies in health care sector has been conducted on nurses in Western and the Middle East countries and is limited in the Indian context. However, this study explored the QWL and turnover intention of nurses, pharmacists, laboratory technicians, and radiology technicians working in private health care sector of Odisha (an Indian state). Thus, this study is a sincere attempt to cover the existing literature gap and contributes to the body of knowledge of QWL and employee turnover in health care sector of India.

7.3.2 Practical Implications

This study will definitely assist to resolve the existing issues and challenges relating to QWL of health care employees and help the practitioners and policy makers to design appropriate strategies for the holistic wellbeing of the major stakeholders of the health care system. The key implications of this research work are discussed below:

Employees

- The study emphasised on a bunch of job dimensions, which are vital for augmenting the QWL of the health care employees. The organisations can effectively amend job dimensions, only when it is cognisant of the areas that are deficient and need improvement. Thus, this research strives to improve the employees' awareness and stimulate them to make consistent efforts for conveying the lacking areas of their jobs to the concerned authorities and experience better QWL.
- The study draws attention to a cluster of human resource interventions, which are necessary to improve QWL of the health care employees. The HR interventions are designed by the organisation to fill up the gap between the prevailing and expected needs of the employees. This study will encourage the employees to be vigilant and proactively participate in all the organisational initiatives to identify its inadequacies and suggest the innovative measures that would cater to their needs and enhance the level of QWL.

Practitioners

- This research provides a vital and flexible tool (QWL) in the hands of the health care managers, administrators, and practitioners that can be stimulated by elements of the job and workplace practices. Further, the improved QWL can enhance the belongingness of the employees with the organisation and reduce the rate of attrition. This knowledge may encourage the organisations to reform certain job dimensions as well as implement suitable human resource interventions for reaping benefits for the employees as well as the organisation.
- The private health care units must consider QWL of employees as an important HR strategy and develop clear plans and policies to implement the same. This research may provide substantial evidence to the health care managers for

improving structures and planning approaches for building employee friendly workplaces as well as make the working lives of the employees more meaningful and value driven.

- QWL measures are scarcely functional in the health care units of India due to lack of proper guidelines. This study has validated a holistic framework for the practical realisation of the concept. This framework may act as a blueprint for health care organisations to assess and improve QWL, commitment levels as well as reduce employee turnover.

Policy Makers

- This research may stimulate debate among health care leaders on the requisites and paybacks of building a QWL policy based on pragmatic insights. Further, the study promotes the inception of QWL studies in health care organisations that embrace multi-level perspectives for developing practices that can foster satisfaction and well-being of health care employees.
- The success of QWL measures requires strong government support and synergistic effort of all the stakeholders. This research endeavours to kindle discussions among health care service providers and policymakers to create and sustain healthier workplaces for employees. Thus, this work supports the crusade to enhance the QWL of the employees as the top priority of the health care decision makers of the country.

7.4 Limitations of the Study

The study presents a number of important insights, at the same time; it suffers from the following limitations:

- The process of collection of primary data from the respondents through field survey was conducted through prior permission from the management of the concerned health care organization. However, several organisations were reluctant to give permission for the survey, as social science research is not popular in the private health care units of Odisha, which limited the scope of the study. It also took a substantial amount of time to seek approval for conducting the survey in the health care units. This study required secondary information relating to HR

practices and turnover rates from the research units, which were deemed confidential in nature. Therefore, no secondary data from the private health care units could be extracted for the academic purpose.

- There is a paucity of secondary information regarding the health care employees working in private sector of India. Thus, the researcher retorted to several reports, newspaper articles, and websites to gather information. Therefore, the statistics on health care employees of India, provided in this thesis are of approximate values. The figures may be underestimated or overestimated; it may not include health workers in the private sector and those working in unpaid or unregulated conditions, or not currently engaged in the Indian health care sector.
- The data for the research was gathered through voluntary participation and a self-reporting survey. It is possible that employees who did not choose to participate differed in their opinion on the study variables from those who participated. Further, the self-reported measures could have increased social desirability bias. However, the results of Harman's single factor test suggested that such bias is not a serious concern in this study.
- The responses gathered in this research are mostly the subjective perceptions of the employees. Although the subjective evaluations obtained through multi-item scales are generally consistent with objective measures but differences between the perceptions and objective data may exist.
- The findings of this research may not be generalised in a diverse context. In this study, convenience sampling method was applied to collect data from the private health care units of Odisha. The findings may not be the same if research were to be conducted using randomly selected samples. Further, the study was conducted in private health care units located in the major towns and cities of Odisha. The perception of employees working in private health care units located in rural and other urban areas of the state and whole country may not be same.
- The research was cross-sectional study because data for this study were collected from individual respondents at a single point of time. The results may differ from a longitudinal study, where the progress is examined over a period.

7.5 Conclusion

The purpose of this research was to provide an empirical evidence for improving the retention of health care employees through exploration of perceived QWL and turnover intention in Indian private health care context. The health care employees in the study displayed a low degree of perceived QWL, which revealed a high turnover intention. The investigation of primary data disclosed significant relationships between all the study variables. The results highlight that the redesigning of job dimensions and formulation of HR interventions can lead to robust QWL, increase commitment levels, and lower turnover intention of health care employees. This research also provided a novel model depicting the relationship of QWL and turnover intention of health care employees for future researchers. This study contributed to the pool of research knowledge from a diverse culture and health care system, like India. When the improved job dimensions and attuned HR interventions are coupled with augmented QWL, it may create a progressive effect on employee's attitudes (commitment and turnover intention) and organisational outcomes (employee retention). Further, a higher perceived QWL can keep the employees focused and support them to strive effectively towards the organisational goals. Therefore, better QWL of employees is an imperative criterion for improving retention rates, achieving health care outcomes, and addressing the shortage of the health care workforce. Lastly, this research is a sincere attempt to integrate the employees as the core long-term assets of the health care system. This can only be conceivable by embedding high standards of human resource practices and QWL initiatives within the strategic plans at the organisational and governance levels.

7.6 Scope for Future Research

- The sample of study is limited to employees of health care units in the state of Odisha. Therefore, future studies may take in account health care employees in other Indian states, developing and developed countries to extend and validate the findings of this study.
- Future studies can also test the role of other mediators except QWL to explain the relationship between job dimensions, HR interventions, employee commitment and turnover intention to derive interesting outcomes.
- Researchers may also conduct a series of comparative studies focusing on QWL and turnover intention of health care employees. These studies may compare

different categories of health care employees, employees working in health care units providing varying levels of care and employees working in the public and private health care organisations. A variety of health care systems and working environments may produce different results.

- This study provided a model representing the relationship between QWL and turnover intention. The appropriateness of this model may be examined on different categories of health care employees in other regions and countries, and future researchers/scholars may further advance the derived model towards scientific, meaningful, and universal acceptance among the peers.

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Appendix

QUESTIONNAIRE

Declaration: Information collected through this questionnaire will be used for academic purpose only.

NAME OF ORGANISATION

GENDER	MALE		FEMALE	
AGE GROUP (yrs)	21-30	31-40	41-50	51-60
EDUCATION LEVEL	Matric / Diploma /	Intermediate / Graduation / Post Graduation		
PROFESSION	Nurse / Pharmacist / Radiology Technician / Laboratory Technician			
WORK EXPERIENCE (yrs)	01-05	06-10	11-15	16-20 21-ABOVE

I would be very grateful if you would indicate your opinion/perception on each statement by giving a tick (√) on the number given on the right hand side.

SCALE: Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, Strongly Disagree= 1

Express your opinion regarding the physical work setting in the organization

I1	Adequate seating arrangements are provided	1	2	3	4	5
I2	Comfortable in terms of temperature and lighting	1	2	3	4	5
I3	Provided with ample storage area	1	2	3	4	5
I4	Able to personalize your workspace	1	2	3	4	5
I5	The workplace is free from excessive noise	1	2	3	4	5
I6	Adequate patient care supplies and equipment	1	2	3	4	5
I7	Free from verbal abuse and violence	1	2	3	4	5
I8	Adequate protection against workplace hazards	1	2	3	4	5
I9	Clean and healthy work setting	1	2	3	4	5
I10	The physical work environment has a positive impact on quality of work life.	1	2	3	4	5

Personal opinion on occupational stress experienced in the organisation

I11	Feel high job pressure	1	2	3	4	5
I12	Feel nervous and strained as a result of the job	1	2	3	4	5
I13	Have unachievable deadlines	1	2	3	4	5
I14	Unable to manage the workload	1	2	3	4	5
I15	Certain aspects of the job are frustrating	1	2	3	4	5
I16	Feel worn out and weary after work	1	2	3	4	5
I17	Feel guilty to take time off from the job	1	2	3	4	5
I18	Low occupational stress leads to better quality of work life	1	2	3	4	5

Convey your views regarding the career growth and development prospects

I19	Opportunities for career advancement	1	2	3	4	5
I20	Provision for career counselling and assistance	1	2	3	4	5
I21	Permission and financial support for higher education	1	2	3	4	5
I22	Regular assessment of skills and abilities	1	2	3	4	5
I23	Encouragement to develop new skills	1	2	3	4	5
I24	Continuous feedback and mentoring extended by the	1	2	3	4	5

	superiors					
I25	Attend job related training programmes	1	2	3	4	5
I26	Opportunities for career growth and development enhances the degree of quality of work life	1	2	3	4	5

State your response relating to the characteristics of your job assigned by the organisation

I27	Able to learn new skills	1	2	3	4	5
I28	Perform variety of tasks	1	2	3	4	5
I29	The assigned work is significant to the organisation	1	2	3	4	5
I30	Tasks are challenging and interesting	1	2	3	4	5
I31	Able to do tasks without interruptions	1	2	3	4	5
I32	Freedom to decide how to do your work	1	2	3	4	5
I33	Job requires lots of physical effort	1	2	3	4	5
I34	Exposed to hazardous materials at work	1	2	3	4	5
I35	Job characteristics significantly influence quality of work life	1	2	3	4	5

Your views on compensation and reward practices of the organisation

I36	Salary is more than the prevailing market rates	1	2	3	4	5
I37	DA, HRA and other benefits are included in salary	1	2	3	4	5
I38	Qualification and experience determine the salary	1	2	3	4	5
I39	Salary increases to a fair extent every year	1	2	3	4	5
I40	Receive fair payment for overtime work and night shifts	1	2	3	4	5
I41	Adequate opportunities for promotion and transfers	1	2	3	4	5
I42	Current position adequately reflects your education and training	1	2	3	4	5
I43	Seniority-cum-merit is the basis for promotion	1	2	3	4	5
I44	Performance incentives are provided at regular intervals	1	2	3	4	5
I45	Receive appreciation and compliments for work done	1	2	3	4	5
I46	Measures on fair compensation and reward system significantly influence the degree of quality of work life	1	2	3	4	5

Rate your perception regarding the support received from superiors, coworkers and family members with regard to your job

I47	Able to share problems with your superiors	1	2	3	4	5
I48	Receive individual help and support from your superiors	1	2	3	4	5
I49	Superiors recognise and value your work	1	2	3	4	5
I50	Coworkers are helpful when you encounter difficulties in work	1	2	3	4	5
I51	Coworkers share knowledge and information.	1	2	3	4	5
I52	Working with people here is like being part of a family	1	2	3	4	5
I53	Receive constructive criticism about the work from coworkers	1	2	3	4	5
I54	Family members provide emotional help and support	1	2	3	4	5
I55	Able to share work problems with family	1	2	3	4	5
I56	Family helps to make career decisions	1	2	3	4	5
I57	Social support leads to better quality of work life	1	2	3	4	5

State your response regarding the initiatives of the organization for a secured job

I58	Assigned a temporary position	1	2	3	4	5
I59	Low chances of dismissal due to negligence in work	1	2	3	4	5
I60	Experiencing desirable changes in the work situation	1	2	3	4	5
I61	Able to stay in the present job as long as you wish	1	2	3	4	5
I62	Feeling secure in the job	1	2	3	4	5
I63	Job security significantly influences the quality of work life	1	2	3	4	5

Convey your views regarding the presence of welfare measures in the organization

I64	Provision of housing facilities	1	2	3	4	5
I65	Availing organizational conveyance facility	1	2	3	4	5
I66	Canteen facility is available	1	2	3	4	5
I67	Facilities for treatment of self and family	1	2	3	4	5
I68	Receive compensation for workplace injury or disablement	1	2	3	4	5
I69	Contribution of the organization towards employees provident fund	1	2	3	4	5
I70	Policy for payment of gratuity	1	2	3	4	5
I71	Welfare measures enhance the degree of quality of work life	1	2	3	4	5

Express your opinion regarding the mechanism of grievance management

I72	Freedom to express grievances	1	2	3	4	5
I73	Attention is paid to the reported grievances	1	2	3	4	5
I74	Adequate enquiry is conducted for grievances	1	2	3	4	5
I75	Fair decisions are taken on grievances	1	2	3	4	5
I76	Immediate implementation and follow up of the decision taken	1	2	3	4	5
I77	Procedures for resolving grievances are transparent	1	2	3	4	5
I78	Grievance management positively impacts quality of work life	1	2	3	4	5

Rate your perception relating to the actions taken by the organization to promote teamwork and transparent communication system

I79	Team members have complimentary skill set	1	2	3	4	5
I80	Members support each other during high workload	1	2	3	4	5
I81	Positive feedback is exchanged between members	1	2	3	4	5
I82	Members help each other to improve team performance	1	2	3	4	5
I83	Individual expertise is respected by team members	1	2	3	4	5
I84	Members relay relevant information in a timely manner	1	2	3	4	5
I85	Members follow a standardized method of sharing information	1	2	3	4	5
I86	Team members communicate freely	1	2	3	4	5
I87	Teamwork and effective communication system lead to better quality of work life	1	2	3	4	5

State your response regarding the empowerment and involvement measures of the organisation

I88	Opportunity to develop job competence	1	2	3	4	5
I89	Awareness of the values and goals of the management	1	2	3	4	5

I90	Able to access resources for accomplishing the job	1	2	3	4	5
I91	Flexible and decentralisation in job	1	2	3	4	5
I92	Sought out by peers and physicians to help with problems	1	2	3	4	5
I93	Clarity of roles and responsibilities in job	1	2	3	4	5
I94	Initiatives are welcomed by management	1	2	3	4	5
I95	Participate in making decisions concerned with your job	1	2	3	4	5
I96	Involvement in the open discussions of employee-employer forum	1	2	3	4	5
I97	Employee empowerment and involvement significantly influence the quality of work life	1	2	3	4	5

Convey your views on the work-life balance measures taken by the organisation

I98	Weekly holiday is provided after consecutive working days	1	2	3	4	5
I99	Provision of maternity/paternity benefits	1	2	3	4	5
I100	Provision for child care/elderly care during work hours	1	2	3	4	5
I101	Flexible work timings are provided to accommodate family needs	1	2	3	4	5
I102	Rotational shifts help to manage family life	1	2	3	4	5
I103	Less overtime work helps to give more time to family	1	2	3	4	5
I104	Work life balance augments the degree of quality of work life	1	2	3	4	5

Evaluate the perceived degree of quality of work life as experienced by you

I105	Experiencing good health and mental well-being	1	2	3	4	5
I106	Feel physically safe at work	1	2	3	4	5
I107	Satisfied with the pay at work	1	2	3	4	5
I108	Have good friends at work	1	2	3	4	5
I109	Have enough leisure time after work	1	2	3	4	5
I110	Feel appreciated at work	1	2	3	4	5
I111	Recognition among the peers as a performer	1	2	3	4	5
I112	Job allows to realise your potential	1	2	3	4	5
I113	Feeling of enhanced personal growth	1	2	3	4	5
I114	Life is close to ideal	1	2	3	4	5

Express your opinion on the following statements

I115	Strong sense of belonging to the organisation	1	2	3	4	5
I116	Emotionally attached to the organisation	1	2	3	4	5
I117	Feel a sense of moral obligation to remain in the organisation	1	2	3	4	5
I118	Loyal to organisational goals	1	2	3	4	5
I119	Owe a great deal to the organisation	1	2	3	4	5
I120	Difficult to leave the organisation irrespective of a better job offer	1	2	3	4	5
I121	Staying in this organisation is a desire rather than a necessity	1	2	3	4	5
I122	Too few options to consider leaving this organisation	1	2	3	4	5
I123	Too costly to leave the organisation right now	1	2	3	4	5

Rate your perception regarding the following statements

I124	Want to find a comparable job in a different organisation	1	2	3	4	5
I125	Seriously thinking of quitting the job	1	2	3	4	5
I126	Will look for a new job to work by next year	1	2	3	4	5
I127	Will look for a new job in the near future	1	2	3	4	5
I128	Actively looking for a job outside the organisation	1	2	3	4	5
I129	Results of job search are encouraging	1	2	3	4	5
I130	As soon as I find a better job, I will leave the organization	1	2	3	4	5
I131	Intend to leave this profession	1	2	3	4	5
I132	Will not stay with the present employer until retirement	1	2	3	4	5
I133	Will not continue as an employee of the organisation for a longer period	1	2	3	4	5

Thank You

Tanaya Nayak
Doctoral Scholar
School of Management
National Institute of Technology Rourkela
Rourkela-769008, (Odisha)
Email: tanayanayak10@gmail.com

Dissemination

Internationally indexed journals (*ESCI, Scopus, ABDC)*

1. **Nayak, Tanaya** and Sahoo, C. K. (2015). Quality of work life and organizational performance: The mediating role of employee commitment. *Journal of Health Management*, 17(3), 263-273.
2. **Nayak, Tanaya**, Sahoo, C. K., Mohanty, P. K. and Sundaray, B. K. (2016). HR interventions and quality of work life of health care employees: An investigation. *Industrial and Commercial Training*, 48(5), 234-240.
3. **Nayak, Tanaya**, Sahoo, C. K. and Mohanty, P. K. (2017). Impact of HR interventions on quality of work life: Evidence from health care units. *International Journal of Indian Culture and Business Management*, 14 (2), 214-236.
4. **Nayak, Tanaya**, Sahoo, C. K. and Mohanty, P. K. (2018). Workplace empowerment, quality of work life and employee commitment: A study on Indian health care sector. *Journal of Asia Business Studies*, 12(3) (Accepted for Publication, Manuscript ID: JABS-03-2016-0045.R2).

Other journals

1. **Nayak, Tanaya** and Tripathy, S. K. (2014). Factors affecting quality of work life of health care employees: A conceptual framework. *Personnel Focus*, 10(2), 14-21.
2. **Nayak, Tanaya**, Sahoo, C. K. and Mohanty, P. K. (2015). Predictors of perceived quality of work life of employees: Empirical evidence from Indian health care sector. *Udyog Pragati*, 39(2), 1-15.

Conferences

1. **Nayak, Tanaya** and Sahoo, C. K. (2014). Quality of work life and organizational performance: The mediating role of employee commitment. *Sixth International Conference on Excellence in Research and Education*, held during 8th - 11th May, 2014 at Indian Institute of Management, Indore.
2. **Nayak, Tanaya**, Sahoo, C. K. and Mohanty, P. K. (2015). Quality of work life plays the mediating role in between workplace empowerment and employee commitment: A study on health care employees of an Indian state. *1st IIMA International Conference on Advances in Healthcare Management Services*, held during 6th -7th June, 2015 at Indian Institute of Management, Ahmedabad.

Curriculum Vitae

T A N A Y A N A Y A K
School of Management
National Institute of Technology, Rourkela
Odisha, India, 769008
Phone: +91-9437312913(M)
Email: tanayanayak10@gmail.com

EDUCATION

- Doctor of Philosophy (Ph.D.) in Management, National Institute of Technology, Rourkela.
  Area of Research: Quality of Work Life of Health Care Employees
  Year of Completion: 2017
- Master of Business Administration (MBA), Utkal University, Odisha with First Class First. Specialization Area: Human Resource, 2012.
- Bachelor of Science (B.Sc.) from Ravenshaw University, Odisha with First Class. Specialization Area: Information Technology Management with Network Engineering (Honours), 2010.
- Higher Secondary (10+2) in Science from Central Board of Secondary Education (CBSE), India with First Class. Specialization Area: Physics, Chemistry, Mathematics, Biology, English, 2007.
- Matriculation (10^{th}) in English, Science, Mathematics, Social Science, and Hindi from Central Board of Secondary Education (CBSE), India with First Class, 2005.

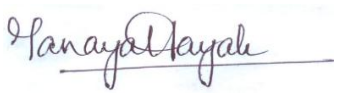
ACADEMIC HONORS & AWARDS

- Qualified for Lectureship in U.G.C. – National Eligibility Test (NET), June, 2012.
- Awarded with two Gold Medals for securing highest marks in MBA for the Academic Session 2010-12 from Utkal University, Odisha.
- Recipient of Merit Scholarship from "Prof. Pranakrushna Parija Charitable Trust" (Odisha) during Post Graduate year 2010-2011
- Awarded with First Prize at the "Kamalnayan Bajaj Memorial All India Inter University English Debate Competition" held at Sikhsha Mandal, Wardha, Maharashtra.
- Awarded with Second Prize at the Inter College Debate Competition in English held at Utkal University, Bhubaneswar.
- Nominated to the Senate of Utkal University as Student Representative for the year 2011-2012.

SOFTWARE PROFICIENCY

- Operating System (Windows 2007, 2008, 2010)
- Application Package [MS-Office (Word, Excel, PowerPoint, Publisher), SPSS 20, AMOS 20]

Place: Rourkela
Date: 09.01.2017



(Tanaya Nayak)