

The Pennsylvania State University  
The Graduate School  
Department of Learning and Performance Systems

**EXPLORING THE RELATIONSHIP BETWEEN THE QUALITY OF NURSES'  
WORK LIFE AND NURSES' WORK ENGAGEMENT IN HOSIPTALS IN THE  
EASTERN PROVENCE OF SAUDI ARABIA**

A Dissertation in  
Workforce Education and Development

by

Zakiya Alsadah

©2017 Zakiya Alsadah

Submitted in Partial Fulfillment  
of the Requirements  
for the Degree of

Doctor of Philosophy

December 2017

The dissertation of Zakiya O. Alsadah was reviewed and approved\* by the following:

Judith A. Kolb

Committee Co-Chair

Dissertation Co-Chair

Associate Professor of Workforce Education and Development

William J. Rothwell

Committee Co-Chair

Dissertation Co-Chair

Program Coordinator of Graduate Program in Workforce Education and Development

Wesley E. Donahue

Associate Professor of Workforce Education and Development

Edgar P. Yoder

Professor of Agricultural Extension Education

Susan M. Land

Director of Graduate Studies for Learning and Performance Systems

\*Signatures are on file in the Graduate School

### **Abstract**

Nursing in Saudi Arabia suffers from staff shortages with a high turnover rate. Extant research suggests that turnover may have a relationship with nurses' level of work engagement. This study was conducted in the eastern province of Saudi Arabia to examine the relationship among three dimensions that may correlate with nurses' work engagement in the Saudi eastern province hospitals. These dimensions are (a) nurses' demographic factors; (b) quality of nurses' work life; and (c) turnover intention. The population size is 21,722 and includes nurses in the private sector and within the Ministry of Health (MOH). Web-survey link and paper surveys were sent to the management of private and MOH hospitals, and they were asked to deliver them to participants. The results of this correlational descriptive study were analyzed using SPSS to determine the descriptive statistics and level of correlation between research variables and work engagement.

The survey was sent to 600 participants. The return rate was 38.6%; after adjusting for insufficient surveys, the rate was 34.5%. Of the 207 participants, 171 (82.6%) were females and 36 (17.4%) males. The majority were between the ages of 21–29, representing (44.0%) of the sample; 45.6% of the participants earned a bachelor's degree or higher; 83.1% of the participants were Saudi nationals; 64.3% were married.

The results of the study showed a significant correlation between the three elements of work engagement and each one of the four dimensions of the quality of nurses' work life. Dedication has the strongest relationship with work context. A negative correlation was found between vigor of the work engagement dimensions and the nurses' turnover intention.

## Table of Contents

<b>LIST OF TABLES.....</b>	<b>vii</b>
<b>LIST OF FIGURES.....</b>	<b>ix</b>
<b>Acknowledgments.....</b>	<b>x</b>
<b>Chapter 1 .....</b>	<b>1</b>
<b>Introduction .....</b>	<b>1</b>
Purpose of the Study.....	1
Historical Perspective .....	1
The Problem .....	4
Limitations .....	6
Definition of Terms .....	7
Absorption .....	7
Burnout .....	7
Dedication .....	7
Job demands .....	7
Job resources .....	8
Personal resources.....	8
Quality of work life (QWL). .....	8
Quality of Nurses Work Life (QNWL). .....	9
Utrecht Work Engagement Scale (UWES). .....	9
Vigor.....	9
Work engagement. ....	9
Work design .....	10
Work context. ....	10
Work world.....	10
Assumptions .....	10
Research Questions.....	10
Theoretical Framework.....	11
The job demands resources model (JD-R).....	11
Quality of nurses' work life (QNWL).....	12
The research model. ....	14
<b>Chapter 2 .....</b>	<b>16</b>
<b>Review of Related Literature.....</b>	<b>16</b>
Work Engagement Concept .....	16
Measuring Work Engagement .....	17
Work Engagement Model .....	22
Measuring QWL .....	24
Dimensions of Quality of Nurses' Work Life .....	26
Work Life/Home Life.....	26
Work Design .....	26
Work Context.....	27
Work World .....	28
Quality of Work Life/Quality of Nurses' Work Life Measurements in Saudi Arabia	28
Relationship between QNWL and Turnover Intention .....	31
Nurses' Individual Demographic Differences and Work Engagement .....	33

Age .....	33
Years of experience.....	34
Gender .....	34
Marital status. ....	35
<b>Population Review .....</b>	<b>35</b>
<b>Chapter 3 .....</b>	<b>38</b>
<b>Methodology.....</b>	<b>38</b>
Purpose of the Study .....	38
Research Questions.....	38
Research Methodology.....	39
Research Variables.....	40
Population and Sample .....	42
Population.....	42
Sample. ....	42
Instrument Translation .....	43
Pilot Study .....	44
Instrumentation and Reliability .....	44
Work engagement. ....	44
The work engagement survey. ....	45
Quality of nurses' work life. ....	46
<i>Quality of nurses' work life survey.</i> ....	47
Instrument for turnover intention. ....	51
Data Collection and the Research Process .....	52
Web-Based Surveys .....	52
Data Analysis Plan .....	53
Independent.....	54
<b>Chapter 4 .....</b>	<b>56</b>
<b>Results.....</b>	<b>56</b>
<b>Number of Participants .....</b>	<b>56</b>
Profile of the Participants.....	57
Reliability, Linearity, and Normality.....	59
Reliability.....	60
Linearity. ....	60
Relationships Between Work Engagement Dimensions and the Quality of Nurses' Work-Life (QNWL) Dimensions .....	61
Relationships Between Work Engagement and Demographic and Employment Factors .....	64
Relationships Between Work Engagement Dimensions and Turnover Intention....	68
<b>Chapter 5 .....</b>	<b>73</b>
<b>Analysis and Recommendations .....</b>	<b>73</b>
Purpose of the Study .....	73
Research Questions.....	73
Research Procedures.....	74
Research Findings .....	74
<b>Discussion .....</b>	<b>75</b>

<b>Recommendations and Implications .....</b>	<b>78</b>
<b>Academic Implications.....</b>	<b>79</b>
<b>Practical Implications .....</b>	<b>81</b>
<b>Future Research .....</b>	<b>86</b>
<b>Limitations.....</b>	<b>86</b>
<b>References .....</b>	<b>88</b>
<b>Appendix A Instrument The Relationship between Quality of Nurses' Work-life and</b>	
<b>Work Engagement.....</b>	<b>105</b>
<b>Appendix B Implied Informed Consent Form for Social Science Research The</b>	
<b>Pennsylvania State University.....</b>	<b>113</b>
<b>Appendix C Distribution of Responses.....</b>	<b>116</b>

## LIST OF TABLES

Table 1-1: Total nursing manpower in MOH facilities by gender and nationality in the eastern province of Saudi Arabia.....	5
Table 1-2: Total nursing manpower in private-sector facilities by gender and nationality in the eastern province of Saudi Arabia.....	5
Table 2-1: Quality of Work Life Empirical References.....	25
Table 2-2: Proportion of nurses in MOH (2012) facilities, by gender and nationality....	36
Table 2-3: Proportion of nurses in private health sector by gender and nationality.....	37
Table 2-4: Total nursing manpower in MOH facilities by gender and nationality in the eastern province of Saudi Arabia.....	37
Table 2-5: Total nursing manpower in privet sector facilities by gender and nationality in the eastern province of Saudi Arabia.....	37
Table 3-1: Relationships among Variable Name, Research Questions, and Item on Instrument.....	40
Table 3-2: Research variables, response options, and the type of data.....	42
Table 3-3: UWES-9.....	46
Table 3-4: Quality of Nurses Work Life Survey.....	48
Table 3-5:3-item Intention Turnover Scale.....	51
Table 3-6: Statistical analysis procedure used in the study.....	54
Table 4.1: Frequency distribution for study demographic variables .....	58
Table 4.2: Frequency distribution regarding employment variables .....	59
Table 4.3: Summary of reliability results for various scales.....	60
Table 4.4: Descriptive statistics for work engagement and work life dimensions.....	62
Table 4.5: Pearson correlation between work engagement dimensions and work life dimensions .....	63
Table 4.6: Pearson correlation between work engagement level and demographic factors.....	65
Table 4.7: Pearson correlation values between turnover intention, work engagement and work life dimension values.....	71

Table 4.8: Turnover Intention Scores Regressed on Background, Work Life and Work Engagement Variables.....	72
--	----



**LIST OF FIGURES**

Figure 1-1: The JD-R model .....	12
Figure 1-2: Proposed model for the relationship among QNWL, demographic factors, work engagement, and turnover intention.....	15

## **Acknowledgments**

My long journey at Pennsylvania State University wouldn't be possible without all the

help and support of many people who shared every good and bad moments with me.

First, I would like to express my deep appreciation and thanks to my committee members, Dr. Judith Kolb, William Rothwell, Wesley Donahue, and Edgar Yoder.

Special thanks to Dr. Kolb for her continues encouragement, advises, support, and understanding throughout my master and PhD. She was the source of comfort for me whenever I feel overwhelmed. In addition, a great appreciation to Dr. Yoder for his enormous and endless help.

The greatest thanks to my family members. Mother and father, brothers and sisters. Their prayers and limitless support and love were the light of my journey, that gave me the strength to work. Utmost thanks to my husband who shared with me every moment of failure and success, Dr. Ali Alkhalaf. Thank you for being a soulmate, friend, and an advisor, without his unconditional love and support, I wouldn't have this success. My final thanks to my lovely three girls, Nada, Zahraa, and Fatimah. Thank you for your understanding, and love, thank you for every moment I spent doing my work instead of playing with you.

## **Chapter 1**

### **Introduction**

In all healthcare units, nurses are the largest group of caregivers. They also carry the responsibility of the majority of patient care before, during, and after a doctor is seen. However, countries around the world, including Saudi Arabia, are suffering from a nursing shortage and a high turnover rate at the same time (Buchan & Calman, 2004). Hospitals struggle to offer sufficient health care services when there are too few nurses to meet patients' needs.

On the one hand, nursing in Saudi Arabia is mostly a female career, as success relies on having a caring nature. On the other hand, nursing requires long hours and night shifts, which conflicts with the Saudi cultural expectation for mothers to always be present for their families and raise and nurture children. Thus, this impasse contributes to a nursing shortage and a high turnover rate that hospitals can solve by studying the different dimensions that influence the appeal of a nursing career, nurses' work engagement, and the retention of nursing staff.

### **Purpose of the Study**

The purpose of this study is to examine the relationship among three dimensions that may correlate with nurses' work engagement in Saudi eastern province hospitals. These dimensions are (a) nurses' demographic factors, (b) quality of nurses' work life (QNWL), and (c) turnover intention.

### **Historical Perspective**

An official Saudi healthcare system was established somewhat later in comparison to developed countries. The first public health department was established in

Mecca in 1925 to provide healthcare services to the population and pilgrims (Alharthi, 1999).

The construction of public hospitals and health centers began with the establishment of the Ministry of Health (MOH) in 1954 (Albou-Enein, 2002). Nursing training began in Saudi Arabia in 1958 in cooperation with the World Health Organization (WHO) (Al Thagafi, 2006; Aldossary et al., 2008; Alhusaini, 2006). With the growth of healthcare institutions, the MOH initiated the Department of Health Education and Training (DHET) in 1967 to supervise healthcare schools and institutions. However, the bachelor of science degree in nursing was not put into place until 1976 at the King Saud University (Aloul-Enein, 2002; Tumulty, 2001). Afterwards, two bachelor of nursing programs were introduced at King Abdulaziz University in Jeddah in 1977 and at King Faisal University in Dammam in 1987 (Tumulty, 2001). In 1987, Saudi Arabia was the lead among Gulf countries in introducing a master of science in nursing in the College of Applied Medical Sciences at King Saud University (Alamri, Raheed, & Alfwzan, 2006). By 1992, a total of 48 healthcare institutions and junior colleges were providing health education, including nursing education (Alhusaini 2006; Abu-Zinadah, 2004). In 1994, a Ph.D. program was started at King Abdulaziz University in cooperation with British universities to facilitate the career development of female nurses who were unable to travel overseas (Abu-Zinadah, 2004).

In order to improve the quality of nursing education, all of these educational organizations were shifted in 2008 from the MOH to the Ministry of Higher Education (MOHE). This step was taken to allow the MOH to focus on providing healthcare. Moreover, MOHE has the required academic experience, financial resources, and

educational facilities (Abu-Zinadah 2004).

In addition to the MOH and MOHE, in 2002, some governmental agencies that offered medical services to their workforce also provided nursing educational programs in order to meet their needs. Some of these agencies were the Medical Services of Army Forces, the National Guard Health Affairs (NGHA), the Prince Sultan Cardiac Centre, and the King Faisal Specialist Hospital and Research Centre (KFSH & RC). In addition, KFSH & RC cooperated with Monash University in Australia to provide a Ph.D. degree to Saudi nurses located in Saudi Arabia (Alamri, Raheed, & Alfwzan, 2006; Alhusaini, 2006; Aldossary, While, & Barriball, 2008; Miller-Rosser et al., 2006; Riyadh Military Hospital, 2008).

In the same year, 2002, the Saudi Commission for Health Specialists (SCFHS) founded the Scientific Nursing Board (SNB), which offered many professional services to nurses to promote their education, work ethics, and career advancement. In addition, all nurses in Saudi Arabia were required to register with the SNB. They had to attend a series of continuing education programs and pass examinations to renew their registration (Abu-Zinadah 2005). In 2003, the Saudi Nursing Society was formed at King Abdul-Aziz University in Jeddah, led by highly expert Saudi nurses. The goals were to exchange expertise among members and share resources and research findings (The Saudi Nursing Society, 2003).

The development of healthcare in Saudi Arabia coincided with the shift in the population to urban areas. In 1970, only 49% of Saudis lived in urban areas—this number shifted to 83% in 2014 (Albou-Enein, 2002; The World Bank, 2015). This shift in population led to an increased demand for medical services by the MOH in these areas. In

order to meet these needs, the MOH accelerated the introduction of medical and nursing schools. Even now, scholarship programs are continuing to be developed in leading medical institutions for study and training. According to the 2014 World Health Organization report, the Saudi healthcare system ranked 26th among 190 of the world's health systems. It exceeded many other international health care systems such as Canada (ranked 30), Australia (32), the United States (37), New Zealand (41), and some Gulf Cooperation Countries such as the United Arab Emirates (27), Qatar (44), and Kuwait (45). This success is due to the high-quality standards that have been promoted by MOH to support the safety of patients and the quality of healthcare facilities (WHO, 2014). However, due to these high health standards, the country still depends heavily on importing the expertise of medical doctors, nurses, and technicians to the MOH. Saudi Arabia has a chronic turnover rate in its health system that needs to be studied in order to attract and retain both local and foreign expertise (WHO, 2014).

### **The Problem**

Nurses in Saudi Arabia represent 55% of the total healthcare workforce (MOH, 2008). Saudi Arabia, like many countries, is struggling with the nursing shortage and the high turnover rate (Abu-Zinadah, 2004; Buchan & Calman, 2004; World Health Organization, 2006). Nursing in Saudi Arabia is not an attractive career for Saudis, who represent 21% of the workforce in the healthcare system in general, and only 4% in the private sector (Almalki, FitzGerald, & Clark, 2011). In 2012, there were only 47.8 nurses per 10,000 people (MOH, 2013). According to a study conducted in Saudi Arabia, 54% of nurses are highly dissatisfied with their job and work conditions (Aljuhani & Kishk, 2006). The purpose of this dissertation study is to collect data on the work engagement

level of nurses working in the eastern province of Saudi Arabia, the correlations between the QNWL dimensions on nurses' work engagement, and the relationship between work engagement level and nurses' turnover intention. It is important for MOH hospitals and private hospitals to assess the QNWL offered to nurses in order to enhance their work engagement and reduce the turnover levels.

The study has been conducted in the eastern province of Saudi Arabia so that participants are accessible to the researcher. Table 1.1 shows the total nursing manpower in MOH facilities by gender and nationality in the eastern province of Saudi Arabia. It is the highest in the country's regions regarding percentage of Saudi nurses compared to non-Saudi nurses, both male and female (MOH, 2012).

Table 1.1

*Total Nursing Manpower in MOH Facilities by Gender and Nationality in the Eastern Province of Saudi Arabia*

Saudi-male	Non-Saudi male	Saudi female	Non-Saudi female
2,028	323	6,136	4,279

Table 1.2

*Total Nursing Manpower in Private-Sector Facilities by Gender and Nationality in the Eastern Province of Saudi Arabia*

Saudi-male	Saudi-female	Non Saudi-male	Non-Saudi female
54	253	1,200	7,471

This study will connect four dimensions to identify relationships among them as well as to determine any consequences of these relationships for nurses' work engagement. The researcher will examine the relationship between each of the four factors of the QNWL and nurses' work engagement. Further, the relationship between each demographic and employment factor (age, gender, educational level, marital status, nationality, dependents, organizational tenure, nurse tenure) and work engagement, QNWL, and turnover intention will be examined. Diagnosing the relationship between QNWL and measuring current nurses' work engagement may predict nurses' future behavior in the workplace. Therefore, this research is important for healthcare organizations looking to sustain their workforce.

### **Limitations**

The study includes all nurses working in different departments of healthcare in the eastern province of Saudi Arabia. This can be a considerable limitation because engagement level and quality of work life can vary from department to department. For example, nurses working in an ICU may have different work-life needs than nurses working in the ER or radiology department, which can affect their level of engagement. Further research is needed to determine the nature of the relationship between work engagement level and quality of nurses' work life and to assess this relationship in each specific healthcare department.

All nurses in the eastern province were included in the study; this decision was made for two reasons. First, the available information about the population size in each department of the healthcare system is insufficient and requires the use of population



estimation. Second, including all nurses increases the chance of obtaining a large enough sample and thus decreases the uncertainty and increases the confidence of this estimate.

The second limitation of this survey is that it does not indicate whether the nurse works a day or night shift. In MOH hospitals, nurses' shifts change every two weeks; in private, small health centers, there are fixed working hours from morning to evening with two shifts—no changes. Nurses working night shifts, especially women with children, will have different perceptions of work life and work engagement than nurses with daylight working hours. This can be an area of future research.

Finally, another limitation is that a nurse's work environment is busy, especially in critical healthcare, and Internet may not be accessible during working hours. Also, the anonymity of the web survey eliminates the chance of follow-up emails to non-respondents.

### **Definition of Terms**

**Absorption.** Absorption characterizes a “state of full concentration and happily engross in which time seems to pass quickly and individuals often experience difficulty detaching themselves from the endeavor” (Schaufeli & Bakker, 2004, p. 295).

**Burnout.** Burnout is described as a state of exhaustion, where the individual is cynical about occupational values and is doubtful about their performance capabilities. It's the antipode of work engagement (Maslach, Jackson, & Leiter, 1996; Schaufeli & Bakker, 2010).

**Dedication.** Dedication is a “strong involvement in one's vocation, characterized by feelings of significance, enthusiasm, and pride” (Schaufeli & Bakker, 2004, p. 295).

**Job demands.** Job demands are characteristics of a job that have the potential to

evoke strain in case they exceed the employee's adaptive capability (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007, p. 275); this includes the “physical, social, or organizational aspects of the job that require sustained physical and/or psychological efforts on the part of the employee, and are therefore associated with certain physiological and/or psychological cost” (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001, p. 501). Examples include work pressure, demands of a client, an ineffective physical work environment, or work-life imbalance.

**Job resources.** Job resources are physical, social, or organizational aspects of the job that may reduce job demands and the associated physiological and psychological costs; help in achieving work goals; or stimulate personal growth, learning, and development (Bakker & Demerouti, 2008; Schaufeli & Bakker, 2004). For example, Schaufeli and Bakker (2004) identified a positive relationship among three job resources: performance feedback, social support, and supervisory coaching—and work engagement (Schaufeli & Bakker, 2004).

**Personal resources.** Personal resources are positive self-evaluations linked to resiliency, and they refer to individuals' sense of their ability to successfully control and have an impact on their environment. For example, optimism, self-efficacy, self-esteem, resilience, and an active coping style help them to control and successfully impact their work environment and achieve career success (Bakker & Demerouti, 2008; Hobfoll, Johnson, Ennis, & Jackson, 2003).

**Quality of work life (QWL).** QWL is defined as consideration of employees' needs and desires regarding work conditions, payment, professional development, work-family balance, safety and social interactions in the workplace, and the social relativity of

the employee's own work (Kanten & Sadullah, 2012; Nazir, Qureshi, & Shafaat, 2011). QWL is a combination of strategies, procedures, and atmosphere related to a workplace that together improve and sustain employee satisfaction by aiming to improve work conditions for the employees of the organization (Nazir, Qureshi, & Shafaat, 2011).

**Quality of Nurses Work Life (QNWL).** Brooks defined QNWL as “the degree to which registered nurses are able to satisfy important personal needs through their experiences in their work organization while achieving the organization's goals” (Brooks, 2001, p. 114). It has four dimensions: work life/home life, work design, work context, and work world (Brooks, 2001).

**Utrecht Work Engagement Scale (UWES).** UWES is a self-report questionnaire that measures work engagement based on the factors of absorption, dedication, and vigor (Bakker, 2003).

**Vigor.** Vigor is characterized by “high levels of energy, an experience of mental resilience while working, a willingness to invest effort in one's endeavor, and persistence in the face of difficulties” (Schaufeli & Bakker, 2004, p. 295).

**Work engagement.** Work engagement is defined as “a positive work-related state of mind that is characterized by a three-factor structure characterized by vigor, dedication and absorption” (Schaufeli & Bakker, 2004, p. 295). Engaged employees are energetic about their work, feel connected to their work, and are better able to deal with job demands (Schaufeli & Salanova, 2007b).

**Work life/home life.** Work life/home life refers to “the interface between the life experiences of nurses in their place of work and in the home” (Brooks, 2001, p. 114).

**Work design.** Work design is “the composition of nursing work, and describes the actual work nurses do” (Brooks, 2001, p. 114).

**Work context.** Work context is “the practice settings in which nurses work and explores the impact of the work environment on both nurse and patient systems” (Brooks, 2001, p. 114)

**Work world.** Work world is “the effects of broad societal influences and changes on the practice of nursing” (Brooks, 2001, p. 114).

### **Assumptions**

One assumption is that a positive correlation exists between nurses’ work engagement and the four dimensions of the quality of nurses’ work life (Kanten & Sadullah, 2012; Leiter & Maslach, 2009). Moreover, several studies have indicated a correlation between work engagement and turnover intention, and QNWL and turnover intention (Almalki, FitzGerald, & Clark, 2012; Kanten & Sadullah, 2012; Leiter & Maslach, 2009). Work engagement will be measured using the UWES-17 instrument. A literature of studies using the UWES-17 instrument to measure work engagement in Saudi Arabia is lacking. However, the instrument has been validated in many countries and cultures. Thus, it is assumed that it will be valid in the Saudi Arabian context (Schaufeli, Bakker, & Salanova, 2006). The quality of nursing work life will be measured using an instrument developed by Brooks (2001) that has four dimensions with 42 items in total. The instrument has been validated in Saudi Arabia and used by researchers at MOH primary health centers (Almalki, FitzGerald, & Clark, 2011).

### **Research Questions**

This study is guided by three research questions:

1. To what extent are vigor, dedication, and absorption correlated with the quality of nurses' work life?
2. What is the relationship between nurses' work engagement level and demographic factors (gender, age, marital status, dependent children, dependent adults, nationality, level of education) and employment factors (organizational tenure, and payment per month)?
3. To what extent does work engagement level influence turnover?

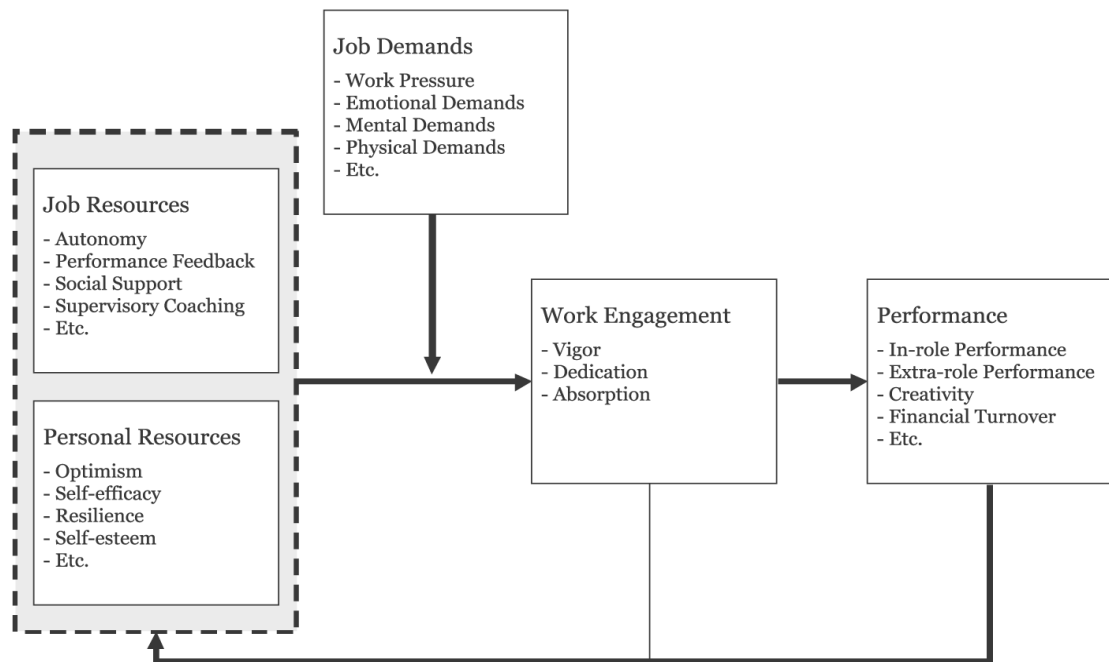
### **Theoretical Framework**

**The job demands resources model (JD-R).** The JD-R is the model most used in measuring employees' work engagement and the relationship between job resources and job demand (Bakker & Demerouti, 2007; Bakker, Demerouti, De Boer, & Schaufeli, 2003; Bakker, Demerouti, & Verbeke, 2004; Hakanan & Roodt, 2010).

Bakker, Hakanan, Demerouti, and Xanthopoulou (2007) studied the role of job resources in an environment characterized by high job demand. Job demands are all of the aspects related to a job: physical, psychological, emotional, social, or cognitive. These researchers found that job resources work as buffers for high job demand. Job demands may turn into stressors if the job resources are limited to the point that they prevent employees from adequate recovery (Meijman & Mulder, 1998). However, high job resources with low or high job demand will lead to high motivation among workers, but high job demand with limited recourse will cause burnout and lack of engagement (Bakker & Demerouti, 2007).

The model originated and extended from the demands-control model (DCM), which aims for a balance between job demands and job control. The theory of the DCM

model is simple. It predicts that a balance between job demand (psychological workload) and job control results in low job stress (Hakanan & Roodt, 2010; Karasek, 1979). An earlier model related to the JD-R is the satisfaction and motivation model. The weakness of the model is that job demand and recourse are central to work only. The JD-R model includes all work and surrounding resources and demands, including psychological and emotional demands and resources to influence work engagement. A study by Schaufeli and Bakker (2004) was the first comprehensive investigation of the JD-R model, including the antecedents and consequences of both engagement and burnout. JD-R can predict work engagement level regardless of the occupation of the assessed group (Figure 1.1) (Hakanan & Roodt, 2010).



**Source:** Based on Bakker & Demerouti (2007)

*Figure 1.1.* The JD-R model

**Quality of nurses' work life (QNWL).** Quality of nurses' work life stems from a socio-

technical systems theory (STS) that was developed in the 1950s. Traditional and behavioral approaches emphasize individual motivation rather than organizational features. Organizations are living social and technical systems as well as physical design and work settings that work together to create an internal environment. The STS theory posits that organizations that are fully engaging employees in work design promote employees' fulfillment while simultaneously achieving organizational goals (Brooks & Anderson, 2005; Hackman, 1980). It aims to identify the needs that people bring with them to the organization and incorporate the means to meet these needs through the design of the work and technology (Cherns, 1976; David & Trist, 1974; Pasmore, Francis, Haldeman, & Shani, 1982). It is based on the theory that nurses can satisfy personal needs and desires through their work experience and fulfill the organization's goals at the same time (Kanten & Saduallh, 2012; Nazir, Qureshi, & Shafaat, 2011).

QWL is a combination of strategies, procedures, and atmospheres relating to a workplace that together enhance and sustain employee satisfaction by aiming at improving work conditions for employees of the organization (Nazir, Qureshi, & Shafaat, 2011). The development of QWL began in the late 1960s, and it emphasizes the human dimensions of work focused on the quality of the relationship between the worker and the working environment (Rose, Beh, Uli, & Idris, 2006; Tabassum, Rahman, & Jahan, 2011). Thus, the main objective of the STS theory is to optimize equally organizational goals and employees' needs (Cherns & Davis, 1975).

Quality of work life is described in three major works: Walton (1975), Taylor (1978), and Levine, Taylor, and Davis (1984) (Brooks & Anderson, 2006). Attridge and Callahan (1990) used the Walton framework to come up with seven dimensions of the

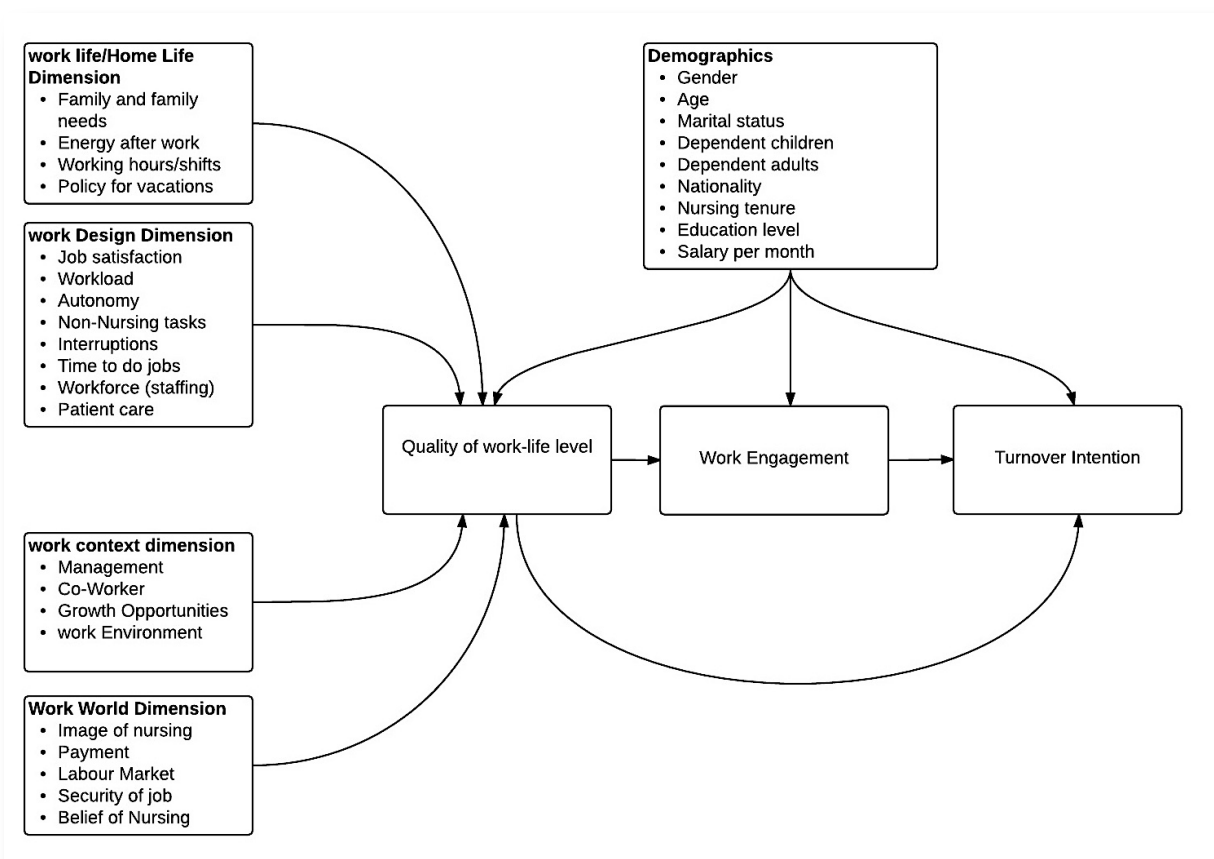
nurses' work environment, as defined by nurses themselves. Brooks (2001) synthesized all dimensions of the QWL and QNWL to have a new framework with only four dimensions that can be used to assess QNWL. These dimensions are work life/home life, work design, work context, and work world (Baumann & O'Brian-Pallas, 1993; O'Brian-Pallas, Baumann, & Villeneuve, 1994).

In a review of the QNWL, Brooks (2001) pointed out the most important physical and psychological resources that should be available to nurses in order to ensure that they are more committed to their jobs and organizations. Therefore, it will be assumed in this study that a relationship existed between the QNWL and the work engagement of nurses.

**The research model.** The proposed model for this research has been created to answer the research questions by linking and combining the JD-R model and QWL model (see figure 1.2). The quality of nurses' work life items represent both job demands and job resources in the model, and these factors impact nurses' work engagement as categorized in four dimensions (work life/family life, work context, work design, and work world). The model will be used to test the relationship between each item in the four dimensions, with each of the three dimensions of work engagement (vigor, dedication, and absorption).

The second part of the model will test the relationship between the level of each of the QNWL dimensions and intention to leave. It will also be used to ascertain the relationship between the level of work engagement items and turnover intention. The third part will assess the relationship between nurses' demographic factors (gender, age, marital status, dependent children, dependent adults, education level, salary per month, nurse's tenure, organization tenure, and nationality) and both work engagement level and





QNWL level.

*Figure 1.2.* Proposed model for the relationship among QNWL, demographic factors, work engagement, and turnover intention

## **Chapter 2**

### **Review of Related Literature**

#### **Work Engagement Concept**

Practitioners and scholars often confuse the concept of work engagement with different constructs that relate to organizational commitments that already exist and try to label them as work engagement. For example, affective organizational commitment means emotional attachment to the organization, or the longing to stay with the organization (Bakker, Albrecht, & Leiter, 2010). In addition, work engagement has been confused by practitioners with extra role behavior (Bakker, Albrecht, & Leiter, 2010).

However, scientists have defined work engagement as “. . . a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption” (Schaufeli et al., 2002, p. 74). Vigor is characterized by “high levels of energy, an experience of mental resilience while working, a willingness to invest effort in one’s endeavor, and persistence in the face of difficulties” (Schaufeli & Bakker, 2004, p. 295). Dedication is a “strong involvement in one’s vocation, characterized by feelings of significance, enthusiasm, and pride” (Schaufeli & Bakker, 2004, p. 295). Absorption characterizes a “state of full concentration and happily engross in which time seems to pass quickly and individuals often experience difficulty detaching themselves from the endeavor” (Schaufeli & Bakker, 2004, p. 295).

Engaged employees are highly energetic and self-efficacious and have the ability to change surrounding events to reflect their positive attitudes and lives. They transfer their positive emotions and engagement to their environment and co-workers, which

makes work engagement a contagious experience (Bakker, 2009; Bakker & Demerouti, 2008). Hard and challenging work is pleasant to them because it's associated with positive accomplishments. They don't have difficulty detaching from work and enjoy their personal lives, unlike workaholic employees who cannot resist the drive of work (Gorgievski, Bakker & Schaufeli, 2010). Moreover, engagement is an indicator of better performance and services. Engaged employees are less involved in occupational injuries, and report fewer errors. According to a meta-analysis conducted in 8,000 business units in 36 companies, engaged employees had better performance, loyalty, and profitability. Also, they showed less intention to leave (Harter, Schmidt, & Hayes, 2002). In a qualitative study conducted with Dutch employees who scored high on the UWES, these employees had high energy in and out work, enthusiasm for work, and positive attitudes—common traits of engaged employees (Bakker, Albrecht, & Leiter, 2010; Schaufeli, Taris, Le Blanc, Peeters, Bakker, & de Jonge, 2001; Schaufeli, Salanova, Gonzales-Roma, & Bakker, 2002). They always experience positive emotions and develop their personal and job resources (Bakker, 2011). According to Grant and Ashford (2008), "Employees do not just let life happen to them. Rather, they try to affect, shape, curtail, expand, and temper what happens in their lives" (p. 3). Therefore, they redesign work tasks to add meaning to their jobs (Bakker, Albrecht, & Leiter, 2010; Parker & Ohly, 2008).

### **Measuring Work Engagement**

Burnout is described as a state of exhaustion, where the individual is cynical about occupational values and is doubtful about their performance capabilities. It's the antipode of work engagement where an employee feels stress and lacks a sense of

accomplishment (Maslach, Jackson, & Leiter, 1996; Schaufeli & Bakker, 2010). Despite the lack of full agreement on a work engagement definition; there is broad consensus on two dimensions of work engagement: energy and involvement. Since burnout is the opposite of work engagement, it is linked to engagement and should be assessed with the same instrument, such as the Oldenburg Burnout Inventory (OLBI), and Maslach Burnout Inventory (MBI) (Maslach & Leiter, 1997; Maslach, Jackson, & Leiter, 1996). The OLBI instrument has been developed to assess burnout, but includes both positively and negatively phrased items. It has two major dimensions: one ranging from exhaustion to vigor and a second ranging from cynicism to dedication. Thus, it can be used to assess work engagement as well (Gonzalez-Roma' et al., 2006).

The Maslach Burnout Inventory (MBI) was developed in the 1970s to assess burnout in the healthcare industry, and became widely used. It's a self-administered survey that consists of 22 items using a 7-point scale ranging from 0 (never) to 6 (everyday). The items assess three dimensions of burnout: emotional exhaustion, depersonalization, and personal accomplishment Three versions have been developed: MBI General Survey (MBI-GS), MBI Educators Survey (MBI-ES), and MBI Student Survey (MBI-SS) (Alzahmi & Buchko, 2014; Maslach, Leiter, & Schaufelil, 2009; Schaufeli et al., 2002).

The Shirom-Melamed Burnout Measure (SMBM) is based on the Conversation for Resources Theory, which posits that everyone has an essential motivation to achieve, retain, and protect the resources that they appreciate. These resources are either physical and tangible or intangible, like personal traits or feelings (Alzahmi & Buchko, 2014; Sherom & Melamed, 2005, Sherom & Melamed, 2006). Burnout or stress happens when

there is a loss or threat of loss of what are perceived as essential resources to individuals. The questionnaire has 14 items that assess three dimensions of burnout: emotional exhaustions, physical fatigue, and cognitive wearing. Participants are assessed in each area by reporting, using a 7-point scale, how often they experience the feeling of these stressors at work (Alzahmi & Buchko, 2014).

The Scale of Work Engagement and Burnout (SWEBO) measures employees' engagement and burnout together within two weeks of work. The engagement part measures the three dimensions of work engagement: vigor, dedication, and absorption. The burnout part measures employee exhaustion, disengagement, and inattentiveness. Each segment of the instrument has nine items to measure (Alzahmi & Buchko, 2014).

One theory of work engagement includes three dimensions: vigor, absorption, and dedication. The Utrecht Work Engagement Scale (UWES) is the most tested and used instrument, according to the peer-reviewed literature, in measuring these three dimensions of work engagement (Schaufeli & Bakker, 2010; Schaufeli et al., 2002). The fit of these three dimensions has been validated in many countries, including China (Yi-Wen & Yi-Qun, 2005), Finland (Hakanen, 2002), Greece (Xanthopoulou et al., n.d.), South Africa (Storm & Rothmann, 2003), Spain (Schaufeli et al., 2002), The Netherlands (Schaufeli & Bakker, 2003; Schaufeli et al., 2002), North America, Africa, Asia, and Australia (Bakker, 2009).

Although the UWES is widely used in assessing work engagement, different instruments have been used to assess work engagement either as a separate contrast or as an opposite scoring pattern of engagement. Shirom-Melamed Vigor Measure (SMVM), created in 2005 by Shirom, has a 12-item questionnaire with a 7-point scale ranging from

“never or almost never” to “always or almost always” (Alzahmi & Buchko, 2014) to demonstrate the “connections of the individual to the work that she or he performs” (Gill, 2007, p. 4). Vigor is represented by three sources of human energy: physical strength, emotional energy, and cognitive liveliness. It assesses how employees feel over 30 workdays, and has high reliability in predicting turnover and employees’ engagement (Alzahmi & Buchko, 2014).

The Employee Engagement Interview (EEI) is an assessment tool that assesses employee engagement through an open-ended interview that provides a large amount of descriptive data that takes much time to analyze. The questions have 1-9 rating scale that covers 17 areas (Alzahmi & Buchko, 2014).

Harter et al. (2002) defined employee engagement as an “individual’s involvement and satisfaction as well as enthusiasm for work” (p. 269). Employee satisfaction has been linked to employee commitment and emotional well-being at work. Therefore, assessment tools have been developed to measure employee satisfaction as an indicator of employees’ engagement.

The Minnesota Satisfaction Questionnaire (MSQ) measures aspects of the employee’s work environment with which they are either satisfied or dissatisfied. It has two versions; one is long with 100 items and gathers comprehensive information about all aspects that need to be measured. The other version is short with 20 items and can be completed in a short amount of time (Alzahmi & Buchko, 2014; Weiss, Weiss, England, & Lofquist, 1967; Worrell, 2004).

Gallup’s Work-place Audit (GWA) or Q12 was developed to study factors that influence the work and learning environment (Harter et al., 2002). It includes 12 items

that measure employees' perception of their work environment by measuring four theoretical constructs: What do I get? What do I give? Do I belong? How can we grow? It claims to measure work engagement in terms of employee involvement, satisfaction, and enthusiasm (Harter, Schmidt, & Hayes, 2002). However, the items on the instrument are intended to assess employees' perceptions of the level of job resources rather than employee engagement.

The Job Satisfaction Survey (JSS) is intended to measure employees' attitudes toward their jobs according to nine facets: nature of work, relation with colleagues, training opportunities, communication, work flexibility, payment, promotion, fringe benefits, and contingent rewards (Alzahmi & Buchko, 2014). The instrument items are written in positive and negative ways to measure job satisfaction and dissatisfaction using a six-point Likert scale (Alzahmi & Buchko, 2014; Astrauskaite, Vaikevicius, & Perminas, 2001; Spector, 1997).

Including to the previous instruments, three other instruments have been used to measure engagement. The first is an instrument known as the UWES that has a 13-item scale. It was developed by May, Gilson, and Harter (2004) and Kahn (1990, 1992) to measure employee's engagement according to three dimensions: cognitive, emotional, and physical engagement. Then Rothbard (2001), in her instrument, used 9 items to distinguish the difference between two components of role engagement: attention and absorption. In 2006, Saks distinguished the difference between job engagement and organizational engagement using an 11-item instrument that measures the psychological presence of employees in both job and organization (Bakker, Albrecht, & Leiter, 2010).

## **Work Engagement Model**

The JD-R is the model most often used to measure employees' work engagement. The roots of the model can be traced back to the buffering hypothesis that explains interactions between job demands and job resources by proposing that the relationship between job demands is weaker for those enjoying a high degree of job resources (Caplan, Cobb, French, Van Harrison, & Pinneau, 1975). The Demand-control model (DCM) has two dimensions for managing job stress: job control and job demand (psychological workload) (Hakanen & Roodt, 2010; Karasek, 1979). The model claims that job control (autonomy) may buffer or weaken the impact of workload.

The effort–reward imbalance model states that rewards (in terms of salary, esteem reward, and security/career opportunities, such as promotion prospects, job security, and status consistency) may buffer the effect of effort (extrinsic job demands and intrinsic motivation to meet these demands) on strain. An earlier model related to the JD-R is the satisfaction and motivation model. The weakness of that model is that job demand and resources are central to the work itself only, and do not include psychological demands or personal resources (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007).

The JD-R model has valuable implications for practice by developing feedback, social support, and autonomy needed to build a structural base for work engagement (Bakker & Demerouti, 2008). It includes work, emotional, personal, and environmental resources. Personal resources are positive self-evaluations connected to resiliency and refer to a person's ability to control and efficaciously impact their environment (Hobfoll et al., 2003). In other words, the greater the number of an individual's personal resources



(e.g., self-esteem, optimism, and self-efficacy), the more positive will be the person's self-regard and self-confidence (Judge et al., 2005). Job resources could be organizational (career development, salary, work conditions), social resources (co-workers support, relationship with supervisor), and work or task resources (role clarity, performance feedback, skill variety, autonomy) (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007).

Job resources play an essential motivational role in employees' engagement because they satisfy employees' needs for autonomy, relatedness, and competence, which encourage employees to dedicate their best efforts to accomplishing their job tasks. They help employees achieve both personal development and growth goals, and organizational goals. Job resources work to reduce job-related psychological or physical stressors (Demerouti et al., 2001; Meijman & Mulder, 1998; Van den Broeck, Vansteenkiste, de Witte, & Lens, 2008).

However, work demands are not limited to job demands, but also include psychological and emotional demands that influence work engagement. A study by Schaufeli and Bakker (2004) was the first comprehensive investigation of the JD-R model, including the antecedents and consequences of both engagement and burnout. JD-R can predict work engagement level regardless of the occupation of the assessed group (Figure 1.1) (Hakanen & Roodt, 2010). According to a study by Bakker, Hakanen, Demerouti, and Xanthopoulou (2007), the model posits a positive correlation between job resources and work engagement, and a negative relationship between job demands and work engagement. Also, job demands and job resources are negatively correlated. However, high job resources and low or high job demand will increase motivation among workers, but high job demand with limited resources will cause burnout and lack of

engagement (Bakker & Demerouti, 2007; Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Bakker, Demerouti, Taris, et al., 2003; Demerouti et al., 2001)

### **Quality of Work Life (QWL)**

Quality of Work Life (QWL) has been defined as the consideration of employees' needs and desires regarding working conditions, payment, professional development, work-family role balance, safety and social interactions at workplace and social relativity of employee's own work (Kanten & Sadullah, 2012; Nazir, Qureshi, &, Shafaat, 2011). It combines strategies, procedures and an atmosphere related to a workplace that together improve and sustain employee satisfaction by aiming to improve work conditions for organizations' employees (Nazir, Qureshi, &, Shafaat, 2011). This important element impacts employees' motivation and enhances overall organizational performance.

Organizations with high QWL have a better image that may be used to attract employees and retain them (Boonrod, 2009; Gupta & Sharma, 2011; Kanton & Sadullah, 2012).

Quality of work life influences employees both in and out of work as well. An employee who lacks job satisfaction and experiences a lot of stress at work is likely to bring these negative emotions to family, leisure and social life (Emadzadeh et al., 2012).

### **Measuring QWL**

The lack of consensus on QWL definitions and measurement tools makes it difficult to have rich research on the concept (Hsu & Kernohan, 2006). Most of the research in the literature focuses either on the drivers (Gillet et al., 2013; Singhapakdi et al., 2015) or the consequences of the QWL (Narehan et al., 2014; Noor & Abdullah, 2011). However, four main studies have investigated the QWL (see Table 2.1)—Walton (1975), Taylor (1978), Levine, Taylor, and Davis (1984) and Brooks and Anderson

(2005). Many scholars have not built a universal model for QWL, arguing that it is better to build the model based on the culture and organization setting (Brook & Anderson, 2005; Hsu & Kernohan, 2006; Hsu & Kernohan, 2006; Mirkamali & Thani, 2011; Hsu & Kernohan, 2006; Lin et al., 2013).

Table 2.1

*Quality of Work Life Empirical References*

<b>Walton (1975)</b>	<b>Taylor (1978)</b>	<b>Levine, Taylor, &amp; Davis (1984)</b>
Adequate, fair compensation	Adequate, fair compensation	Adequate, fair compensation
Safe healthy working conditions	Safe healthy working conditions	Safe healthy working conditions
Growth	Growth	Use of capabilities
Security	Security	Security
Social integration	Social integration	Social integration
Constitutionalism	Constitutionalism	Constitutionalism
Work life	Work life	Work life
Social relevance of life	Social relevance of life	Social relevance of life
	Employees QWL	Employees QWL
	Societal QWL	Societal QWL

Adapted from B. A. Brooks & M. A. Anderson (2005), Defining quality of nursing work life.

*Nursing Economics*, 23(6), 319.

Very limited empirical evidence has shown the impact of QWL dimensions on work engagement, but there is abundant literature on the relationship between QWL and turnover intention, satisfaction, and commitment in different types of industries, including health care (Hsu & Kernohan, 2006; Kantan & Sadullah, 2012). From a nursing

perspective, Brooks (2001) defined the QWL as “the degree to which registered nurses are able to satisfy important personal needs through their experiences in their work organization while achieving the organization’s goals” (p. 114). Health care managers can adapt the QNWL approach as a long-term strategy for attracting and retaining nurses (Clarke & Brook, 2010; Schalk, Bijl, Halfens, Hollands, Cummings, 2010). According to Brooks (2001), QWL can improve the overall work experience of nurses and increase the organization’s productivity and health care quality.

### **Dimensions of Quality of Nurses' Work Life**

The QNWL has four dimensions. Each is described below:

**Work Life/Home Life:** Defined as the interface between the life experiences of nurses in their place of work and in the home” (Brooks, 2001, p. 114), this is one of the factors found in many studies conducted in several countries that has been negatively associated with nurses’ work life. Examples include: Taiwan (Hsu & Kernohan, 2006), Iran (Khani, Jaafarpour, & Dyrekvandmogadam, 2008; Nasl Saraji, & Dargahi, 2006), and the U.S. (Brooks & Anderson, 2004; Brooks, Storfjell, Omoike, Ohlson, Stemler, Shaver, & Brown, 2007). For example, since the majority of nurses are females, these studies have found that it is important for nurses to have daycare for their children or elderly daycare to take care of their dependent parents (Brooks & Anderson, 2004; Khani, Jaafarpour, & Dyrekvandmogadam, 2008).

**Work Design:** It is defined as “the composition of nursing work, and describes the actual work nurses do” (Brooks, 2001, p. 114). The nature of nursing work is one of the factors that impacts nurses’ dissatisfaction with their QWL. The nursing career is known to include a heavy workload, poor staffing, lack of autonomy, and lack of career

advancement—these have been shown in many studies of nurses’ dissatisfaction with their QWL (Almalki, FitzGerald, & Clark, 2012; Brooks & Anderson, 2004; El-Gilany, Al-Wehady, 2001; Khani, Jaafarpour, & Dyrekvandmogadam, 2008; Rout U, 2000).

Baumgardener (2014) found that nurses’ workload was being described as too large to meet patients’ needs—an insufficient staff was the first factor in decreasing work engagement since it caused a high level of stress. Nurses linked demoralization to increased workloads and poor pay and promotion prospects (Seccombe et al., 1994; Shields & Ward, 2001). In a national survey of NHS nurses in 1994, Beishon, Virdee, and Hagell (1995) found that only 32% were satisfied with their pay and just 20% with their promotion prospects. Less than one-in-three nurses reported to be satisfied with their workload and only one-half reported satisfaction with their working hours (Shields & Ward, 2001).

**Work Context:** is defined as “the practice settings in which nurses work and explores the impact of the work environment on both nurse and patient systems” (Brooks, 2001, p. 114). This includes the relationship with management and management support. Nurses experience dissatisfaction when they cannot participate in decision-making or are taken for granted in the workplace. Further, workplace politics impede nurses’ ability to do what is right for their patients. Those behaviors were attributed to management, co-workers and physicians (Boumgardner, 2014). Nurses feel that they do not receive respect or feel a lack of impact and autonomy, and don’t receive recognition for their accomplishments (Boumgardner, 2014; Brooks & Anderson, 2004; Khani, Jaafarpour, & Dyrekvandmogadam, 2008).

Also, relationships with co-workers, development opportunities, and the work environment, such as safety and security in the workplace, all influence QNWL (Alhusainin 2006; Brooks & Anderson, 2004; El-Gilany, Al-Wehady, Almalki, FitzGerald, & Clark ; Khani, Jaafarpour, & Dyrekvandmogadam, 2008).

**Work World:** is defined as “the effects of broad societal influences and changes on the practice of nursing” (Brooks, 2001, p. 114). In many literatures, the image of nurses in society was one source of low QWL (Almalki, FitzGerald, & Clark, 2012; Hsu & Kernohan, 2006; Khani, Jaafarpour, & Dyrekvandmogadam, 2008). According to Al Thagafi (2006), in societies that view nurses only as assistants to physicians and underestimate their role in caring for patients, nurses tend to have low QNWL. Lewis, Brazil, Krueger, Lohfeld, and Tjam (2001) found that nurses’ salary could predict 40% of the QNWL level in health organizations.

### **Quality of Work Life/Quality of Nurses' Work Life Measurements in Saudi Arabia**

Sultan Almarshad (2015) conducted a study in Saudi Arabia designed to produce a comprehensive model and valid measures of QWL that fit Saudi Arabia and other countries with the same work culture. He used multistage steps in the investigation and analysis to make this model and measures suit different professions.

Sultan Almarshad, in his 2015 study, argued that all studies conducted to measure the QWL in Saudi Arabia had been initiated in only two professions: healthcare and faculty members. In addition, no validated measurements of QWL in Saudi Arabia could be used as a universal instrument for all professions either in Saudi Arabia or in other countries with the same work culture. He adapted the list of items from existing scales (Casio, 1992; Kantan & Sadullah, 2012; Lin et al., 2013; Walton, 1975). The instrument

had been translated from English to Arabic and then back-translated. The sample was 241 participants aged 21 to 57, and represented both genders working at private and public sectors in the northern border of the country. In-depth interviews were conducted to identify new items not on the generic list. Questions included: How do they perceive their QWL? (2) What factors make them satisfied/unsatisfied with their work life? and (3) What tasks do they take to manage or develop QWL? These were then asked to collect qualitative data that were analyzed using content analytic. The analysis led to 79 new items. After conducting content and face validity with five academicians, the number of items was decreased to 62, and then to 30 items. The items were categorized into four factors that drive the QWL: stress at work (four items), work occupy (five items), job and career satisfaction (12 items), working conditions (nine items). To determine the reliability of the scale, Cronbach's alpha measures for four subscales ranging from 0.78 to 0.94, and was 0.93 for the overall QWL scale.

The second study in Saudi Arabia by Almalki, FitzGerald, and Clark (2012) was to ascertain the relationship between the QWL and nurses' work retention in primary healthcare centers in the Jazan region. They proposed a model that assumed a correlation among work life-related factors, employees' demographic characteristics, QWL level and turnover intention.

They used three instruments to collect the data. The QWL survey developed by Brooks (2001) was used to measure the quality of nurses' work-life. It includes 42 items and follows a 6-point Likert scale. In this study, the Cronbach's alpha for Brooks' scale was (.89). Demographic questions were used to gather information about participants and find connections with other measurement factors in other instruments. They include: age,

marital status, dependent children, dependent adults, nationality, ethnicity, level of education, nursing tenure, organizational tenure, positional tenure, location of the PHC, and payment per month. The Anticipated Turnover Intention Scale (ATS) has 12 items and follows a 7-point Likert scale developed by Hinshaw and Atwood in 1978 to study turnover intention among nurses. The Cronbach's alpha for ATS in this study was (.90).

The survey was translated into Arabic by a bilingual researcher, and back-translated to English by another bilingual researcher. Then a panel of three bilingual experts in health research and health management reviewed the questionnaire and assured its validity. Two pilot studies were conducted to ensure the clarity and appropriateness of the questionnaire. They sent the survey to a convenience sample through the health department in Jazan. The survey was cross-sectional, involving 585 Saudi and non-Saudi nurses working in 134 PHC centers who received a study package. The response rate was 87% (503 nurses returned surveys)—72.2% were Saudi. About 67.3% were females, and 44.1% were aged 20 to 29 years old; 73.8 were married. A total of 61% had dependents who were either children or adults, and 47% had a diploma, 33% has institute certification, 12.8% had an associate degree, and 5.3% had a bachelor degree or higher. About 46% of the sample received a monthly salary of 5,000 to 10,000 Saudi Riyals (SR) (1US\$ = SR 3.75) (46.3%). Among the respondents, 62% stated that they cover two departments or more during their duties. The mean work experience as an RN was 11.3 years, with about 6.6 years in the current PHC organization, and 6.1 years in the current position. The QWL score for nurses was 139.45, considered less than average as indicated by Brooks (2001), where the QWL ranged between 42 and 252. Furthermore, 40% of the participants indicated their intention to leave their current workplace.



An independent sample t-test and an ANOVA were conducted to examine whether any relationship existed between turnover intention and demographic variables:

- Significant associations were found between turnover intention and demographic variables of gender, age, marital status, dependent children, education level, nursing tenure, organizational tenure, positional tenure, and payment per month.
- The associations between turnover intention and demographic variables of dependent adults, nationality, ethnicity, and location of PHC were not significant.
- The beta-squared test for these demographics indicates small to medium effect size of the variation in turnover intention scores.
- Younger nurses had a greater intention of leaving their current job, and male nurses had a greater intention of leaving than did females.

### **Relationship between QNWL and Turnover Intention**

A standard multiple regression was performed between turnover intention as the dependent variable and the four dimensions of QWL (work life/home life, work design, work context, and work world). The largest beta value in this case was for work context followed by work design, work life/home life, and work world (Almalki, FitzGerald, and Clark, 2012).

In another study to measure the quality of nurses' work life in Saudi Arabia, Almalki, FitzGerald, and Clark (2012) assessed the QNWL in primary health care centers in the Jazan region of Saudi Arabia (southern area). They used a cross-sectional survey developed by Brooks that has 42 items with four subscales. The survey was translated by a bilingual researcher, and then back-translated by another researcher. In addition, a panel of three bilingual workforce management and health research faculty reviewed the

translated questionnaire in comparison with the English format and assured its validity. The sample involved 59 nurses and was distributed throughout the 134 PHC. The research population was 585 Saudi and non-Saudi nurses. The response rate was 91%. The majority was females aged 20–29, 44.1% were married and 73.8% had children, and 61% lived with dependent adults. Most respondents held less than a bachelor degree in nursing (93.9%).

Data were analyzed using SPSS version 17 for Windows Descriptive statistics; total scores and sub-scores for QWL items and item summary statistics were computed and reported. Other tests include t-test and one way-analysis of variance (ANOVA) to ascertain whether there was a significant difference in the QWL scores based on demographic factors. The majority of the nurses who participated in the study were unsatisfied with their work-life or work design, and expressed their need to have childcare on-site. Moreover, there were too few RNs in PHC. Regarding work context, nurses were concerned about not having enough supervision or safety in the workplace. However, they have good communication with co-workers and physicians. At the final dimension, nurses agreed that the image of nursing is still not bright in the community.

Demographic factors have significant differences on the QWL. Male nurses were less satisfied compared to female nurses (Al Juhani & Kishk, 2006; Sochalski, 2002). Non-Saudi nurses had significantly higher QWL score compared to Saudi nurses. Older nurses with more experience had higher scores on QWL than did younger ones with less experience. In addition, married nurses had higher scores on QWL than singles. However, most singles were young, too; nurses with dependents (either children or adults) scored lower on QWL than nurses without dependents.

## **Nurses' Individual Demographic Differences and Work Engagement**

Goffman (1961a) suggested that people's attachment to and detachment from their role varies (Khan, 1990). Demographic factors displayed independent effects often used in nursing research as predictors of work engagement, turnover, and turnover intention (Bludom, 1982, Mor Bara, Nissly, & Levin, 2001).

Almalki (2012) and Almalki, FitzGerald, and Clark (2012) investigated the relationship between demographic variables and nurses' intention to leave. They found significant associations between turnover intention and the demographic variables of gender, age, marital status, dependent children, education level, nursing tenure, organizational tenure, positional tenure, and payment per month. However, no significant association was found between turnover intention and dependent adults, or by nationality and ethnicity.

### **Age**

The relationship between work engagement and age is not well-defined. Some research has offered evidence that aging is associated with lower vigor and dedication (Hakanan, Bakker, & Schaufelli, 2006), which means less work engagement compared to their younger counterparts. Other studies indicated higher levels of work engagement (Goštautaitė, 2014; James et al., 2011; Schaufeli & Bakker, 2004b).

Several studies showed a relationship between nurses' age and years of experience and their level of turnover intention. Older nurses with more experience seemed to be more satisfied with their work and had less intention to leave. The reasons could be that older nurses have strong relationships with the organization, and may have developed more ties with co-workers and management (Aljuhani & Kishk, 2006; Bjork,

Samdal, Hansen, Torstad, & Hamilton, 2007; Rambur, Palumbo, McIntosh, & Mongeon, 2003; Shields & Ward, 2001). In a cross-sectional descriptive study by Zaghloul, Al-Hussaini, and Al-Bassam (2008) at King Faisal University's Hospital, nurses' aged 30 to 40 indicated the highest intention to leave their organization. Nurses older than 40 were least likely to intend to leave.

### **Years of experience**

There is a negative relationship between nurses' years of experience in an organization and their job commitment and turnover intention. This could be a result of nurses' greater connection to the organization, which leads them to develop stronger ties with co-workers and management, and makes them more engaged, satisfied and less likely to leave. Many studies have supported this result (Almalki, FitzGerald, & Clark, 2012; Hart, 2005, Hwang & Chang, 2009; Tourangeau & Cranley, 2006).

### **Gender**

Nursing is not a female-dominated career—many men graduate from nursing schools. Yet many of these men choose not to work in jobs related to nursing. Between 1992 and 1996, the proportion of males not working in nursing increased from 2.0 to 7.5 compared to women, which increased from 2.7 to 4.1. In nursing, men are less satisfied with their jobs than women. In a cross-sectional study conducted by Almalki (2012) in Saudi Arabia, male nurses were more likely to intend to leave than female nurses. In addition, men were found to be less satisfied with their jobs than were women. Almalki, FitzGerald, and Clark (2012) said that the nursing profession has a caring nature that suits females, and is not well regarded for men in a country like Saudi Arabia. Therefore, in many healthcare organizations male Saudi nurses hold management positions or non-

clinical positions unrelated to nursing even though they represent 36.4% of the total nursing workforce in the country. Further, nurses often work in places far from their families, and men may have dependents who are either parents or children. Thus, many of the nurses prefer to leave nursing to be close to family.

### **Marital status.**

According to studies done in Saudi Arabia, Almalki, FitzGerald, and Clark (2012) and Almalki (2012), married nurses had less intention to leave their jobs than never-married nurses. One logical reason may be family-related financial responsibilities that require married nurses to commit to their current jobs (Hwang & Chang, 2006). Moreover, married couples with children were less likely to leave their jobs due to the pressure of providing financial support to children (Barnes, Parry, Lakey, 2002; Higgs, Mein, Ferrie, Hyde, & Nazroo, 2003; Phillipson & Smit, 2005).

### **Population Review**

Hospitals and primary healthcare centers in Saudi Arabia are operated by governmental agencies and private organizations. The nursing shortage is a universal problem due to demographic changes within an aging nursing workforce, at a time that young generations are avoiding nursing practice (Buchan, 1994). In most western countries, nursing is female-dominated while medicine is male-dominated. In Saudi Arabia, medicine is the most acceptable and prestigious job for women while nursing is regarded as a low-status job (El-Sanabary, 1993). According to the World Health Organization in 2006, Saudi Arabia is suffering from a chronic shortage in nurses accompanied by a high turnover rate (Abu-Zinadah, 2004). The nursing sector in Saudi Arabia depends primarily on an expatriate nurse workforce. Nurses of more than 40

nationalities work in Saudi health care. Nationalities include but are not limited to India, Philippines, North America, UK, Australia, Malaysia, South Africa, and some Middle Eastern countries (Aboul-Enein, 2002; Abu-Zinadah, 2004; Luna, 1998).

A statistical report from the MOH (2009) showed that the total number of nurses in all healthcare sectors, including MOH facilities (60% with 244 hospitals), private sector (31% with 125 hospitals), and governmental sector (9% with 39 hospitals), is 44,719. The workforce is approximately 53% non-Saudi and 47% Saudi Nationals.

However, in the private sector the percentage is lower for Saudis, who represent only 4.1%. Table 2.2 shows the number of nurses in the MOH facilities by gender and nationality. The total number of non-Saudi males and females exceeds the total number of Saudi males and females. Table 2.3 shows the number of nurses in the private sector in Saudi Arabia by gender and nationality. There is a huge gap in numbers of nurses by nationality. This study will focus only on the eastern province of Saudi Arabia where the representation of both female and male Saudi nurses exceeds the representation of non-Saudi nurses in the MOH sector, (see Table 2.4). However, this is not the case in the private sector in the eastern province where the non-Saudi nurses in both genders exceeds the Saudis, (see Table 2.5).

Table 2.2.

*Proportion of nurses in MOH (2012) facilities, by gender and nationality*

Category	Saudi Male	Non-Saudi Male	Saudi Female	Non-Saudi Female
Nurses	19,409	1,423	26,466	35,650

Table 2.3

*Proportion of nurses in private health sector by gender and nationality*

Category	Saudi Males	Non-Saudi Males	Saudi Females	Non-Saudi Females
Private sector nurses	461	398	2,613	24,901

<http://www.moh.gov.sa/en/Ministry/Statistics/book/Documents/1433.pdf>

Table 2.4.

*Total nursing manpower in MOH facilities by gender and nationality in the eastern province of Saudi Arabia*

Saudi-Male	Non-Saudi Male	Saudi Female	Non-Saudi Female
2,028	323	6,136	4,279

Table 2.5

*Total nursing manpower in private sector facilities by gender and nationality in the eastern province of Saudi Arabia*

Saudi-Male	Saudi-Female	Non Saudi-Male	Non-Saudi female
54	253	1,200	7,471

## **Chapter 3**

### **Methodology**

#### **Purpose of the Study**

The Saudi healthcare system is looking to advance its services for patients. However, understaffing in healthcare and a high turnover rate among nurses are significant obstacles in offering better patient services and creating a healthier work environment. The purpose of this study is to help Saudi healthcare personnel better understand factors associated with nurses' work engagement in order to determine methods to attract and retain a healthcare workforce. The relationships among three dimensions associated with nurses' work engagement in Saudi eastern province hospitals were examined (Buchan & Calman, 2004): (a) nurses' demographic factors, (b) quality of nurses' work life (QNWL), and (c) turnover intention.

#### **Research Questions**

This study was guided by three research questions:

RQ1. To what extent does work engagement (vigor, dedication, and absorption) correlate with the quality of nurses' work-life dimensions (work life/home life, work context, work design, and work world)?

RQ2. What is the relationship between nurses' work engagement, demographic factors (gender, age, marital status, dependents, nationality, and level of education), and employment factors (organizational tenure, nurse tenure, and monthly income)?

RQ3. To what extent does work engagement influence turnover?



## Research Methodology

This cross-sectional study represents descriptive, correlational research. Previously validated instruments were used. The research questions and related instrument items are displayed in Table 3.1.

Table 3.1

### *Relationships Among Variable Name, Research Questions, and Item on Instrument*

Variable name	Question	Item on instrument
Vigor	What is the relationship between nurses' work engagement level for vigor and work-related demographic factors?	UWES-9: Q1, Q2, Q5
Dedication	What is the relationship between nurses' work engagement level for dedication and work-related demographic factors?	UWES-9: Q3, Q4, Q7
Absorption	What is the relationship between nurses' work engagement level for absorption and work-related demographic factors?	UWES-9: Q6, Q8, Q9
Work life/home life	To what extent are vigor, dedication, and absorption correlated with the quality of nurses' work-life dimension (work life/home life)?	QNWL: A

(continued)

Table 3.1

*Relationships Among Variable Name, Research Questions, and Item on Instrument*

Variable name	Question	Item on instrument
Work design	To what extent are vigor, dedication, and absorption correlated with the quality of nurses' work life dimension (work design)?	QNWL: B
Work context	To what extent are vigor, dedication, and absorption correlated with the quality of nurses' work life dimension (work context)?	QNWL: C
Work world	To what extent are vigor, dedication, and absorption correlated with the quality of nurses' work life dimension (work world)?	QNWL: D
Turnover intention	To what extent does work engagement level influence the turnover intention?	Turnover intention: E

**Research Variables**

Table 3.2 provides a summary of the scale of measurement and response options for the research variables. In this study, summated Likert scales were utilized to represent interval data.

Table 3.2

*Research Variables, Response Options, and Type of Data*

Variable	Response options	Type of data
Gender	0= Male	Binary
	1= Female	

(continued)

(continued)

Table 3.2  
*Research Variables, Response Options, and Type of Data*

Variable	Response options	Type of data
Highest degree	0 = Institute	Categorical
	1 = Diploma	
	2 = Associate degree	
	3 = Bachelor's degree or higher	
Age	0 = 21–29 years	Categorical
	1 = 30–39 years	
	2 = 40–49 years	
	3 = 50 years or more	
Nurses' tenure/ organizational tenure	0 = 1–4 years	Categorical
	1 = 5–9 years	
	2 = 10 or more	
Dependents	0 = Children	Binary
	1 = Adults	
Marital status	0 = Married	Categorical
	1 = Never married	
	2 = Divorced/widowed	
Salary per month	0 = Less than 5,000	Categorical
	1 = 5,000–10,000	
	2 = 10,000 or more	
Nationality	0 = Saudi	Binary
	1 = Non-Saudi	

(continued)

(continued)

Table 3.2  
*Research Variables, Response Options, and Type of Data*

Variable	Response options	Type of data
Vigor	Likert scale from 0–6	Interval (summated Likert score)
Absorption	Likert scale from 0–6	Interval (summated Likert score)
Dedication	Likert scale from 0–6	Interval (summated Likert score)
Work life/home life	Likert scale from 1–6	Interval (summated Likert score)
Work context	Likert scale from 1–6	Interval (summated Likert score)
Work design	Likert scale from 1–6	Interval (summated Likert score)
Work world	Likert scale from 1–6	Interval (summated Likert score)
Turnover intention	Likert scale from 1–5	Interval (summated Likert score)

### **Population and Sample**

**Population.** The population in this study comprised all nurses working in the eastern province of Saudi Arabia. There are 12,744 registered nurses working for the Ministry of Health (MOH) and 8,978 nurses working in private-sector facilities, which resulted in a total population of 21,722 nurses for this study.

**Sample.** The sample for this population included both genders, all nationalities, and a range of years of experience.

Tabachnick and Fidell (2007) indicated that sample calculation required

knowledge of the number of variables; this study included a total of 17 variables. A simple equation was used to calculate the sample size:  $50 + 8(m) + m$ , where  $m$  was the number of variable in the study; therefore,  $50 + 8(17) + 17 = 203$  nurses.

A strategy was devised to communicate with nurses using a variety of methods. This included asking managers of each healthcare unit to contact (via email) all nurses and/or offer paper copies of survey instruments to nurses who lacked access to technology. According to Fowler's (2014) approach, most samples do not really represent all characteristics of the population, as some groups typically do not have an opportunity to be included and therefore participate in a study. Fowler suggested that a sample should be comprehensive and representative of the sample frame—in this study, that included all types of nurses.

Random sample size was utilized to obtain given population estimates through sample size tables in order to attain specific precision and confidence levels. In this study, the estimated sample size for a population of 21,722 was 373, with a 95% confidence and a 5% confidence interval (Dillman, Smyth, & Christian, 2014; Montgomery & Runger, 2010).

### **Instrument Translation**

The research instrument was available in both English and Arabic. It was translated into Arabic by the researcher and then validated by two bilingual researchers. An English as a second language teacher back-translated the instrument from Arabic to English to ensure accuracy.

## **Pilot Study**

The purpose of the pilot study was to determine the content validity of the instrument and its fit with the group to be studied; results could be used to improve prospective tools before applying them on a larger scale/with a larger group (Sampson, 2004). To increase the study's return rate and obtain as much useful information as possible, the pilot included approximately 10 bilingual nurses who suggested improvements to the instruments in a face-to-face evaluation after completing the survey. These 10 nurse participants were selected by the researcher, who felt confident in their ability to complete the survey.

## **Instrumentation and Reliability**

### **Work engagement.**

In this study, a quantitative approach was used to collect and analyze the data. The UWES-9 instrument was used to assess nurses' work engagement; its 7-point Likert scale ranged from 0 (*never*) to 6 (*always*). (See Appendix A.) The Utrecht Work Engagement Scale (UWES) is a self-report questionnaire developed by Schaufeli and Bakker in 2002 to measure the three dimensions of work engagement: vigor, dedication, and absorption. The original questionnaire consisted of 24 items—seven items were eliminated to create a 17-item survey. The number of items on the latest version of the questionnaire were reduced to nine (Schaufeli, Bakker, & Salanova, 2006) after a study was completed in 10 countries in order to reduce instrument items as much as possible. The three dimensions of the UWES-9 are vigor, which has three items; dedication, which has three items; and three items for absorption (Schaufeli, Bakker, & Salanova, 2006b). Cronbach's alpha for the total nine-item scale varies between .85 and .92 across all 10

countries. The Cronbach's alpha for the three dimensions of vigor varies between .60 and .88 (median = .77); for dedication, between .75 and .90 (median = .85); and for absorption, between .66 and .86 (median = .78). In this study, a quantitative approach was used to collect and analyze the data. The UWES-9 instrument was used to assess nurses' work engagement; its 7-point Likert scale ranged from 0 (*never*) to 6 (*always*). (See Appendix A.). The short UWES scales share more than 80% of their variance with the corresponding longer original versions.

### **The work engagement survey.**

This survey was used to collect data from nurses working in the MOH and private sector in the eastern region of Saudi Arabia. The data included information for the demographic factors of participants that may influence work engagement (see Appendix A):

Age: 21–29 years; 30–39 years; 40–49 years; 50 years and above

Gender: \_\_\_ Male \_\_\_ Female

Educational level: \_\_\_ Institute; \_\_\_ Diploma; \_\_\_ Associate; \_\_\_ Bachelor's or higher\_\_\_

Marital status: Never married\_\_\_; Married\_\_\_; Divorced/Widowed\_\_\_

Dependents: Children\_\_\_\_; Adults\_\_\_\_

Salary per month: less than 5,000; 5,000–10,000; above 10000

Nationality: Saudi\_\_\_; Non-Saudi\_\_\_

Organization tenure: 1–4 years, 5–9 years, 10 years or more

Nurse tenure: 1–4 years, 5–9 years, 10 years or more

**Please provide your response based on the directions for each statement set.**

The statements are to determine nurses' feelings in the workplace. The scale (see Table 3.3) starts with 0, which means they haven't had the feeling before, or they may indicate how often they have had the feeling, ranging from 1 to 6.

Table 3.3

*UWES-9*

	Almost never	Rarely	Sometimes	Often	Very often	Always
0	1	2	3	4	5	6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

	0	1	2	3	4	5	6
1. At my work, I feel bursting with energy.							
2. At my job, I feel strong and vigorous.							
3. I am enthusiastic about my job.							
4. My job inspires me.							
5. When I get up in the morning, I feel like going to work.							
6. I feel happy when I am working intensely.							
7. I am proud of the work I do.							
8. I am immersed in my work.							
9. I get carried away when I am working.							

### **Quality of nurses' work life.**

Brooks (2001) developed the QNWL survey to define the quality of nurses' work life. She was interested in learning the degree to which registered nurses may satisfy



essential personal needs through their experience in their work organizations while achieving the organization's goals. The survey had 42 items, divided into four dimensions: work life/home life, work design, work context, and work world.

The survey has been validated in many countries for different industries, including the United States, Iran, and Saudi Arabia for nurses and healthcare practitioners (Almalki, FitzGerald, & Clark, 2012; Vagharseyyedin, Vanaki, & Mohammadi, 2011).

The test-retest reliability for the survey is Pearson's  $r = .90$  ( $n = 53$ ). In terms of reliability, the total calculated for the 42-item survey using Cronbach's  $\alpha$  is .89 for studies completed by Brooks (2001) and Brooks and Anderson (2005). For studies concluded by Almalki (2012) in Saudi Arabia, Cronbach's  $\alpha = .90$  (Almalki, FitzGerald, & Clark, 2012; Brooks, 2001).

In addition, studies completed in Iran by Zadeh, Mansoori, and Farid (2008), and Khani, Jaafarpour, and Dyrekvandmogadam (2008), contextualized the survey to the local setting and the multicultural nursing workforce in Saudi Arabia, which solidified the reasoning for including the survey in this study.

#### ***Quality of nurses' work life survey.***

The quality of nurses' work life (QNWL) survey measures four dimensions: work life/family life (six items), work context (21 items), work design (10 items), and work world (five items). Participating nurses were asked to indicate the extent to which they agreed or disagreed with each item on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). (See Appendix A).

Table 3.4

*Quality of Nurses Work Life Survey*

1	2	3	4	5	6
Strongly disagree	Disagree	Moderately disagree	Moderately agree	Agree	Strongly agree
Item					
1	2	3	4	5	6
<b>A. Work life/home life</b>					
1. I have energy left after work.					
2. The organization's policy for vacations is appropriate for me and for my family.					
3. I'm able to balance work with family needs.					
4. It's important to have support for taking care of elderly parents.*					
5. It's important to have on-site/near child care services.*					
6. The system of working hours negatively affects my life.*					
<b>B. Work design dimension</b>					
7. There are enough registered nurses in my work setting.					
8. I receive quality assistance from nursing assistants and service workers.					
9. I experience interruptions during daily work routine.*					
10. I perform many non-nursing tasks.*					
11. I receive sufficient assistance from nursing assistants and service workers.					
12. My workload is too heavy.*					
13. I have autonomy to make client/patient care decisions.					
14. I'm able to provide quality client/patient care.					
15. I have enough time to do jobs.					
16. I'm satisfied with my job as a nurse.					

(continued)

Table 3.4

*Quality of Nurses Work Life Survey*

1	2	3	4	5	6					
Strongly disagree	Disagree	Moderately disagree	Moderately agree	Agree	Strongly agree					
Item					1	2	3	4	5	6
C. Work context dimension										
17. I'm able to communicate well with my management and supervision.										
18. I'm recognized for my accomplishments by my nurse manager/supervisor.										
19. My nurse manager/supervisor provides adequate supervision.										
20. I'm able to participate in decisions made by my nurse manager/supervisor.										
21. I feel upper-level management has respect for nursing.										
22. I receive enough feedback on my performance by my nurse manager/supervisor.										
23. Nursing policies and procedures facilitate the work.										
24. I have good communication with my nurse manager/supervisor.										
Co-workers										
25. I feel like there is teamwork in my work setting.										
26. I communicate well with physicians in my work setting.										
27. I feel respected by physicians.										
28. I have good communication with other co-workers.										

(continued)

Table 3.4

*Quality of Nurses Work Life Survey*

1	2	3	4	5	6					
Strongly disagree	Disagree	Moderately disagree	Moderately agree	Agree	Strongly agree					
Item					1	2	3	4	5	6
29. I have friendships with co-workers.										
Development opportunities										
30. I receive support to attend continuing education/training programs.										
31. Career advancement opportunities.										
32. It's important to have the opportunity to further nursing education.*										
Work environment										
33. I feel the security department provides a secure environment.										
34. I have adequate client/patient care supplies and equipment.										
35. I feel safe from personal harm at work.										
36. I feel like I belong in the workplace.										
37. It's important to have a break area for nurses.*										
D. Work world dimension										
38. I believe that the society has the correct image of nurses.										
39. I would be able to find the same job in another organization with about the same salary and benefits.										
40. I feel my salary is adequate to my job, given current job market conditions.										
41. I feel my job is secure.										
42. Nursing work positively impacts the lives of others.										

\*Items modified from the original to fit the Saudi system.

Adapted from *Quality of Work Life and Turnover Intention in Primary Healthcare Organizations: A Cross-Sectional Study of Registered Nurses in Saudi Arabia* by M. J. Almalki, 2012, and "Defining Quality of Nursing Work Life," by B. A. Brooks and M. A. Anderson, 2005, *Nursing Economics*, 23, p. 319.

### Instrument for turnover intention.

Many studies have suggested a relationship between work engagement and employee turnover intention. A high accuracy level in predicting actual turnover has been found (Harter, Schmidt, & Hayes, 2002; Saks, 2006). The 3-item Intention Turnover Scale (ITS) is a self-report questionnaire with a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). (See Appendix A). This study examined the relationship between nurses' work engagement and their intention to leave for another position, using the 3-item ITS developed by Colarelli (1982). The internal consistency reliability estimate for the ITS in Colarelli (1982) was  $\alpha = .75$ , and in Shuck et al. (2011),  $\alpha = .81$ . In a more recent study by Kim (2014), internal consistency was  $\alpha = .71$  with a significance level of .01.

Table 3.5

#### *3-Item Intention Turnover Scale*

Please indicate your level of agreement with each statement.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I frequently think of quitting my job.					
I am planning to search for a new job during the next 12 months.					
If I have my own way, I will work for this organization one year from now.					

## **Data Collection and the Research Process**

The study was designed to include three surveys in order to investigate each area of research: work engagement, QNWL, and turnover (see Appendix A). Due to the inclusion of human participants in this research, approval was obtained from the Institutional Review Board for the participants' protection.

Nurses working in the healthcare private sector and MOH hospitals in the eastern province of Saudi Arabia were eligible to participate in the study. They were approached in two ways: (1) direct contact— after creating the survey using Qualtrics Survey at Penn State, the link was sent to nurses via email or mail and (2) through hospital and health center management, who determined the best way to reach nurses. The instrument package included a consent form that summarized the study and information about voluntary participation in the study. In addition, it included information about the protection of participant identities (see Appendix B). Hospital management personnel were asked for their permission and support for survey completion.

## **Web-Based Surveys**

A large number of surveys may be collected in a short amount of time and then analyzed with little effort (Dillman, Smyth, & Christian, 2014). Furthermore, the increasing use of the cell phone as the primary method to connect with the Internet makes web surveys more convenient and accessible. Cell phones thereby increase potential participation as well as access and responses, which can increase the survey's general response rate. However, if technology is not routinely accessible or is limited, this must be considered a limitation of the study (Park, 2015).

Online surveys are more appealing to researchers because they are fast, easy to

analyze, and economical. Dillman, Smyth, and Christian (2014) stated in their book *Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method* that web surveys are the “fastest growing form of surveying occurring in the United States, as well as throughout most of the world” (p. 301).

Web surveys can be designed and built using a website on the Internet; in this research, Qualtrics was used. Settings were applied to require answers to some questions in order to progress through the survey. The number of times the participants could enter the survey was controlled, but they could save their responses and return later to complete them. The survey URL was sent to the nurses via email. When participants clicked on the link, it took them to the survey site. There, they found a description of the survey and the time needed to complete it (Dillman, 2007). The survey for this study was available in two languages: English and Arabic. The survey's welcome page offered information on the human subjects' protection, and it gave participants the option to select a language for the survey before answering questions (Dillman, Smyth, & Christian, 2014).

### **Data Analysis Plan**

The data collected via the online surveys were downloaded into SPSS version 23, and the data from the paper version surveys were entered manually into SPSS. The data were cleaned using SPSS before the analysis was run. This included using an exploratory data analysis to identify out of range values, outliers, non-normal distributions for interval scale variables, missing data issues, or coding issues. In addition, frequency, means, standard deviation, and skewness were assessed; graphical procedures including

boxplots and histograms in SPSS were used. Table 3.6 summarizes each statistical technique used in the data analysis.

Table 3.6

*Statistical Analysis Procedure Used in the Study*

Research question	Key variable	Scale of measurement	Statistical technique
Q1. To what extent are vigor, dedication, and absorption correlated with the quality of nurses' work life?	<u>Dependent</u> Work engagement (Y)	Interval	Pearson correlation
	<u>Independent</u> Quality of nurses' work life/home life ( $X_1$ )	Interval	
	Work context ( $X_2$ )	Interval	
	Work design ( $X_3$ )	Interval	
	Work world ( $X_4$ )	Interval	
Q2. What is the relationship between nurses' work engagement level and demographic factors?	<u>Dependent</u> Work engagement (Y)	Interval	Zero order correlations and linear regression
	<u>Independent</u> Gender ( $X_1$ )	Nominal	
	Age ( $X_2$ )	Nominal	
	Marital status ( $X_3$ )	Nominal	
	Dependents ( $X_4$ )	Nominal	
	Nationality ( $X_5$ )	Nominal	
	Level of education ( $X_6$ )	Nominal	
	Nurse tenure ( $X_7$ )	Nominal	
	Organizational tenure ( $X_8$ )	Nominal	
	Payment per month ( $X_9$ )	Nominal	

(continued)



(continued)

Research question	Key variable	Scale of measurement	Statistical technique
Q3. To what extent does work engagement level influence turnover intention?	<u>Dependent</u> Work engagement (Y)	Interval	Zero order correlations and linear regression
	<u>Independent</u> Vigor ( $X_1$ )	Interval	
	Dedication ( $X_2$ )	Interval	
	Absorption ( $X_3$ )	Interval	
	Turnover intention	Interval	

## **Chapter 4**

### **Results**

This chapter presents the results of a quantitative analysis regarding the influence of various factors on work engagement related to the three research questions presented in Chapter 3. The first section of the chapter defines the descriptive statistics for study participants in terms of demographic and employment information, and includes tables regarding frequency, participants' demographics, and employment information. The second section addresses the results for RQ1 concerning the relationship between work engagement and work-life quality. It includes descriptive statistics and the correlational relationships between work engagement and work-life quality. The third section offers results for RQ2, which focused on the relationships between work engagement, demographics, and employment factors. The last section examines the influence of each work engagement dimension and turnover intention for RQ3.

#### **Number of Participants**

The survey was sent to 600 participants through key contacts in the Saudi healthcare system. These key contacts were reached via phone calls, emails, and face-to-face meetings. After getting their commitment and support, a link was provided for them to forward to nurses in health centers. To increase the response rate, follow-up reminders were sent several times starting in late January 2017 and through February, March, and April of 2017 (Dillman, 2007; Fowler, 2014). The number of surveys returned was 232, for a response rate of 38.6%. Responses with missing answers were not included, making the total responses 207, for a response rate of 34.5%.

## **Profile of the Participants**

The frequency distribution for the 207 respondents on demographic variables, including age, gender, highest educational level, dependents, nationality, and marital status is summarized in Table 4.1.

As expected, the majority of respondents were female (82.6%), while the percentage of males was 17.4%. A total of 91 (44%) respondents were 21–29 years old; 90 (43.5%) were 30–39 years old, and 23 participants (11.1%) were 40–49 years old. The smallest percentage of participants (3) was 50 years old or older (1.4%).

The highest education level for participants was a bachelor's degree or higher (113; 54.6%). Fifty-nine participants (28.5%) had a diploma; and 35 (16.9%) had a degree from an institute. With regard to nationality, there were 172 Saudi nurses (83.1%) and 35 non-Saudi nurses (16.9%). The majority of the participants were married (133; 64.3%). Sixty participants were never married (29.3%), 10 were divorced (4.8%), and 4 participants were widowed (1.9%). A total of 128 participants (61.8%) currently had dependent children. Seventy-nine participants (38.2%) reported not currently having any dependent children, while 102 (49.3%) currently had dependents adults and 105 (50.7%) did not currently have dependents adults.

Table 4.1

*Frequency Distribution for Study Demographic Variables (n = 207)*

Demographic variable		Respondents	Valid percentage
Gender	Male	36	17.4
	Female	171	82.6
Age	21–29	91	44.0
	30–39 years	90	43.5
	40–49 years	23	11.1
	50 years and above	3	1.40
Currently have dependent children	Yes	128	61.8
	No	79	38.2
Currently have dependent adults	Yes	102	49.3
	No	105	50.7
Highest educational level	Institute	35	16.9
	Diploma	59	28.5
	Bachelor's degree or higher	113	54.6
Nationality	Saudi	172	83.1
	Non-Saudi	35	16.9
Current marital status	Never married	60	29.3
	Divorced	10	4.80
	Widowed	4	1.90
	Married	133	64.3

The frequency distribution for the employment variables described in Table 4.2 reveals that 52 (22.4%) receive a monthly salary of less than 5,000 Saudi riyal; 113 (48.7%) receive a salary ranging between 5,001–10,000 Saudi riyal; and 67 (28.9%)

receive a salary of more than 10,000 Saudi riyal. About 94 of the participants (45.4%) had been in the same organization for between one and four years; 72 (34.8%) had been with the same organization between five and nine years; and 41 (19.8%) had been with the same organization for more than 10 years. Seventy-nine participants (38.2%) had been in the field of nursing between one and four years, 71 (34.3%) for five to nine years, and 57 (27.5%) for more than 10 years.

Table 4.2

*Frequency Distribution Regarding Employment Variables (n = 207)*

Variable		Respondents	Valid percentage
Current monthly salary	Less than 5,000	52	22.4
	5,001~10,000	113	48.7
	More than 10,000	67	28.9
Years in current organization	1–4	94	45.4
	5–9	72	34.8
	More than 10	41	19.8
Total years in nursing	1–4	79	38.2
	5–9	71	34.3
	More than 10	57	27.5

### **Reliability, Linearity, and Normality**

The data were analyzed to determine whether several statistical assumptions were met for the Pearson correlation and multiple regression analysis. According to Huck (2012), during the data analysis, the interval scale of measurement variable data should be checked for reliability, normality, linearity, and outliers (when appropriate) before conducting correlation or regression statistical tests. These checks are important because

doing so provides information on the normality of the data distributions and enables a determination of whether data transformations may be appropriate.

### **Reliability.**

To measure reliability, Cronbach's alpha was used to determine the internal consistency of the summated Likert scale scores used in this study. Reliability results are summarized in Table 4.3. The results showed that work engagement has a Cronbach's alpha equal to .898, which means that the summated score generated from the UWES-9 instrument used here is reliable (internally consistent). For QNWL, the Cronbach's alpha was equal to .932, which means that this instrument had an internally consistent summated score. For turnover intention, the Cronbach's alpha equaled .734, which means this instrument had an internally consistent score.

Table 4.3

#### *Summary of Reliability Results for Various Scales*

Scale	Cronbach's alpha	Mean	Standard deviation
Work engagement	.898	5.34	1.36
Turnover intention	.734	2.81	1.12
QNWL	.932	3.96	0.76

### **Linearity.**

The Pearson correlation and multiple regression analyses assume linearity between interval scales of measurement variables. The assumption checks indicated acceptable levels of linearity between the variables. Further, there was no problem with

multi-collinearity in the regression analyses, as indicated by tolerance values greater than .10.

The linearity check for the Pearson correlation was conducted for work engagement and QNWL, and work engagement and turnover intention. Using the approach recommended by Garson (2005), the Curve Estimation program in SPSS was used to plot a linear and non-linear fit of the variables. Garson recommended that the R-square values for the linear fit be compared with the R-square value for the non-linear fit in addition to examining the graphs generated with both a linear fit curve plot and non-linear curve plot. Based on Garson's recommendations, the linearity assumptions for both the Pearson correlation and ordinary least squares multiple regressions were met.

### **Relationships Between Work Engagement Dimensions and the Quality of Nurses' Work-Life (QNWL) Dimensions**

The first research question necessitated an examination of the relationship between the quality of nurses' work-life dimensions (work life/home life, work context, work design, work world) and work engagement dimensions (vigor, dedication, absorption). Table 4.4 summarizes the statistics for the mean and standard deviation of work engagement and QNWL dimensions. Absorption had the highest mean of the work engagement dimensions ( $M = 5.78$ ;  $SD = 1.53$ ), followed by vigor ( $M = 5.17$ ;  $SD = 1.59$ ) and dedication ( $M = 4.9$ ;  $SD = 1.74$ ). The total scale for nurses' work engagement was  $M = 5.34$ ;  $SD = 1.3$  (Low value = 1.00; High value = 7.00). There was a slight difference in means for QNWL dimensions: The highest mean was the work life/home life dimension ( $M = 4.04$ ;  $SD = 0.8$ ) and the lowest mean was work world ( $M = 3.7$ ;  $SD = 0.94$ ). The total scale for QNWL was  $M = 3.96$ ;  $SD = 0.76$  (Low value = 1.00; High value = 5.25).

Table 4.4

*Descriptive Statistics for Work Engagement and Work Life Dimensions (n = 207)*

Scale dimension	Mean	SD	Low value	High value
<b>Work engagement</b>				
Vigor	5.17	1.59	1.00	7.00
Dedication	4.90	1.74	1.00	7.00
Absorption	5.78	1.53	1.00	7.00
Total scale	5.34	1.30	1.00	7.00
<b>QNLW</b>				
Work life/home life	4.04	0.80	1.00	5.67
Work context	4.00	0.75	1.00	5.30
Work design	3.90	0.92	1.00	6.00
Work world	3.70	0.94	1.00	6.00
Total scale	3.96	0.76	1.00	5.25

*Note.* Work engagement response scale was 1 = Never; 2 = A few times a year or less; 3 = Once a Month or less; 4 = A few times a month; 5 = Once a week; 6 = A few times a week; 7 = Every day. Work life response scale was 1 = Strongly disagree; 2 = Disagree; 3 = Moderately disagree; 4 = Moderately agree; 5 = Agree; and 6 = Strongly agree.

The second part of the research question required an examination of the Pearson correlation value between work engagement and QNLW dimensions (see Table 4.5).

Each one of the three dimensions for work engagement was positively and significantly ( $p \leq .05$ ) correlated with the four dimensions of QNLW. Dedication had the strongest relationship (moderately high) with work context ( $r = .607$ ); the weakest relationship (moderately low) was between absorption and the work world dimension ( $r = .30$ ).



Table 4.5

*Pearson Correlation Between Work Engagement Dimensions and Work Life Dimensions (n=207)*

Variable		$X_1$	$X_2$	$X_3$	$X_4$	$X_5$	$X_6$	$X_7$	$X_8$	$X_9$
Vigor ( $X_1$ )	Pearson correlation Sig. (2-tailed)	1								
Dedication ( $X_2$ )	Pearson correlation Sig. (2-tailed)	.671 .000	1							
Absorption ( $X_3$ )	Pearson correlation Sig. (2-tailed)	.558 .000	.492 .000	1						
Work engagement total ( $X_4$ )	Pearson correlation Sig. (2-tailed)	.841 .000	.851 .000	.831 .000	1					
Work life/home life ( $X_5$ )	Pearson correlation Sig. (2-tailed)	.472 .000	.524 .000	.408 .000	.549 .000	1				
Work design ( $X_6$ )	Pearson correlation Sig. (2-tailed)	.505 .000	.538 .000	.437 .000	.581 .000	.572 .000	1			
Work context ( $X_7$ )	Pearson correlation Sig. (2-tailed)	.514 .000	.607 .000	.340 .000	.573 .000	.602 .000	.691 .000	1		
Work world ( $X_8$ )	Pearson correlation Sig. (2-tailed)	.441 .000	.536 .000	.308 .000	.502 .000	.489 .000	.563 .000	.652 .000	1	
Work life total ( $X_9$ )	Pearson correlation Sig. (2-tailed)	.568 .000	.655 .000	.418 .000	.643 .000	.725 .000	.826 .000	.959 .000	.752 .000	1

### **Relationships Between Work Engagement and Demographic and Employment Factors**

The second research question examines the relationships between the total of the work engagement level and the demographic factors, and between the work engagement level and the employment factors.

The results in Table 4.6 indicate that there is a significant positive, relatively low correlation between age and work engagement ( $r = .216; p \leq .003$ ), and nationality and the level of work engagement ( $r = .201; p \leq .004$ ). There is a negative low correlation between total work engagement level and having dependent children ( $r = -.170; p \leq .014$ ), and a positive low correlation between total work engagement level and having dependent adults ( $r = .179; p \leq .010$ ).

Table 4.6

*Pearson Correlation Between Work Engagement Level and Demographic Factors*

Variable		(X <sub>1</sub> )	(X <sub>2</sub> )	(X <sub>3</sub> )	(X <sub>4</sub> )	(X <sub>5</sub> )	(X <sub>6</sub> )	(X <sub>7</sub> )	(X <sub>8</sub> )	(X <sub>9</sub> )	(X <sub>10</sub> )	(X <sub>11</sub> )
Work engagement total (X <sub>1</sub> )	Pearson correlation Sig. (2-tailed)	1										
Age (X <sub>2</sub> )	Pearson correlation Sig. (2-tailed)	.216*	1									
Gender (X <sub>3</sub> )	Pearson correlation Sig. (2-tailed)	.054	.004	1								
		.443	.956									

(continued)

Table 4.6

*Pearson Correlation Between Work Engagement Level and Demographic Factors*

Variable		(X <sub>1</sub> )	(X <sub>2</sub> )	(X <sub>3</sub> )	(X <sub>4</sub> )	(X <sub>5</sub> )	(X <sub>6</sub> )	(X <sub>7</sub> )	(X <sub>8</sub> )	(X <sub>9</sub> )	(X <sub>10</sub> )	(X <sub>11</sub> )
Education (X <sub>4</sub> )	Pearson correlation	.074	-.139*	.060	1							
	Sig. (2-tailed)	.286	.047	.390								
Marital status (X <sub>5</sub> )	Pearson correlation	-.118	.300**	-.033	-.160*	1						
	Sig. (2-tailed)	.090	.000	.641	.021							
Dependent children (X <sub>6</sub> )	Pearson correlation	-.170*	.157*	-.124	-.187**	.703**	1					
	Sig. (2-tailed)	.014	.024	.074	.007	.000						
Dependent adults (X <sub>7</sub> )	Pearson correlation	.179**	.021	.146*	.224**	-.600**	-.797**	1				
	Sig. (2-tailed)	.010	.766	.035	.001	.000	.000					
Salary (X <sub>8</sub> )	Pearson correlation	.117	.498**	-.090	-.156*	.307**	.202**	-.073	1			
	Sig. (2-tailed)	.092	.000	.197	.025	.000	.004	.298				

(Continued)

(Continued)

Table 4.6

*Pearson Correlation Between Work Engagement Level and Demographic Factors*

Variable		(X <sub>1</sub> )	(X <sub>2</sub> )	(X <sub>3</sub> )	(X <sub>4</sub> )	(X <sub>5</sub> )	(X <sub>6</sub> )	(X <sub>7</sub> )	(X <sub>8</sub> )	(X <sub>9</sub> )	(X <sub>10</sub> )	(X <sub>11</sub> )
Nationality (X <sub>9</sub> )	Pearson correlation	.201**	-.009	.139*	.269**	-.156*	-.176*	.123	-.431**	1		
	Sig. (2-tailed)	.004	.895	.046	0.000	0.024	0.011	0.079	0.000			
Organization tenure (X <sub>10</sub> )	Pearson correlation	.061	.579**	.013	-.159*	.291**	.153*	-.011	.551**	-.169*	1	.
	Sig. (2-tailed)	.380	.000	.852	.022	.000	.028	.873	.000	.015		
Total years in nursing (X <sub>11</sub> )	Pearson correlation	.141*	.654**	.130	-.196**	.236**	.131	.022	.512**	.028	.709**	1
	Sig. (2-tailed)	.043	.000	.063	.005	.001	.059	.752	.000	.693	.000	

### **Relationships Between Work Engagement Dimensions and Turnover Intention**

The third research question assesses if any of the work engagement dimensions (vigor, dedication, and absorption) have an influence on nurses' turnover. There is a significant, negative low correlation between turnover and the level of vigor ( $r = -.209$ ;  $p < .001$ ), and turnover and dedication ( $r = -.189$ ;  $p \leq .003$ ). This means that lower scores/levels of vigor or lower scores/levels of dedication were associated with slightly higher scores for turnover intention (see Table 4.7).

Even though the study of this research question was intended to determine the influence of engagement on turnover, other factors of influence were also worth examining in relation to turnover. The results of this additional analysis revealed that the total QNWL score ( $r = -.154$ ;  $p < .013$ ) has a negative, although somewhat low, relationship with turnover. However, not all the individual dimensions of QNWL have a relationship with nurses' turnover. Work life/home life and work design have no relationship with nurses' turnover as had been assumed; the only subscales of QNWL that have a correlation on turnover are work world ( $r = -.152$ ;  $p < 0.014$ ) and work context ( $r = -.159$ ;  $p < 0.011$ ). See Appendix C for the distribution of responses of work engagement items and quality of nurses' work life.

In addition to those relationships, there is an interesting relationship between demographic and employment factors and turnover. A block hierarchical multiple regression was utilized to examine if a relationship existed between work engagement and turnover, after controlling for the possible effect of demographic variables and QNWL. First, all demographic background variables were entered in block 1, and subsequently, the quality work life subscale scores were entered in block 2. Work engagement subscale scores were entered in block 3. With all variables entered, it was determined that 25.6% of the variability in turnover was accounted for by the 17 variables ( $R\text{-Square} = .256; p < .001$ ). Since many of the independent variables were not statistically significant in the fully saturated model, a reduced model was developed to include only those variables which were statistically significant at  $p \leq .05$ . The results of this analysis are summarized in Table 4.8.

The final regression model includes four significant independent variables, which accounted for 23.9% of the variability in turnover. The four independent variables included age ( $\beta = -.169$ ), education ( $\beta = .358$ ), years of experience in the current organization ( $\beta = .188$ ), and the work engagement subscale for vigor ( $\beta = -.254$ ). The size of the beta values may be used to indicate the relative importance of the four variables. Education is the single most important variable in explaining differences in turnover; higher education levels were associated with higher turnover scores. Vigor was the second most important variable in explaining differences in turnover: The negative beta value ( $-.254$ ) indicates that higher vigor subscale scores were associated with lower turnover scores. In the reduced model, the four significant independent variables

explained 23.9% of the variability in turnover. Interestingly, the four subscale scores for the work-life dimension in the regression analysis are not statistically significant predictors of turnover.



Table 4.7

*Pearson Correlation Values Between Turnover Intention, Work Engagement and Work Life Dimension Values (n = 207)*

Variable		$X_1$	$X_2$	$X_3$	$X_4$	$X_5$	$X_6$	$X_7$	$X_8$	$X_9$	$X_{10}$
Turnover intention ( $X_1$ )	Pearson	1									
	Sig. (1-tailed)										
Work engagement total ( $X_2$ )	Pearson	-.185**	1								
	Sig. (1-tailed)	.004									
Vigor ( $X_3$ )	Pearson	-.209**	.841**	1							
	Sig. (1-tailed)	.001	.000								
Dedication ( $X_4$ )	Pearson	-.189**	.851**	.671**	1						
	Sig. (1-tailed)	.003	.000	.000							
Absorption ( $X_5$ )	Pearson	-.084	.831**	.558**	.492**	1					
	Sig. (1-tailed)	.115	.000	.000	.000						
QNLtotal ( $X_6$ )	Pearson	-.154*	.643**	.568**	.655**	.418**	1				
	Sig. (1-tailed)	.013	.000	.000	.000	.000					
Work life/home life ( $X_7$ )	Pearson	-.106	.549**	.472**	.524**	.408**	.725**	1			
	Sig. (1-tailed)	.064	.000	.000	.000	.000	.000				
Work design ( $X_8$ )	Pearson	-.077	.581**	.505**	.538**	.437**	.826**	.572**	1		
	Sig. (1-tailed)	.136	.000	.000	.000	.000	.000	.000			
Work context ( $X_9$ )	Pearson	-.159*	.573**	.514**	.607**	.340**	.959**	.602**	.691**	1	
	Sig. (1-tailed)	.011	.000	.000	.000	.000	.000	.000	.000		
Work world ( $X_{10}$ )	Pearson	-.152*	.502**	.441**	.536**	.308**	.752**	.489**	.563**	.652**	1
	Sig. (1-tailed)	.014	.000	.000	.000	.000	.000	.000	.000	.000	

Note. \*Correlation is significant at the .05 level (1-tailed). \*\*Correlation is significant at the .010 level (1-tailed).

Table 4.8

*Turnover Intention Scores Regressed on Background, Work Life, and Work Engagement**Variables (n = 207)*

Variable	Saturated model		Reduced model	
	Beta	<i>p</i>	Beta	<i>p</i>
Background variables				
Age (0 = 21–29 years)	-0.155	.058	-0.169	<b>.025</b>
Gender (0 = Male)	-0.004	.953		
Marital status (Never married)	0.066	.477		
Education (0 = LT bachelor's degree)	0.350	<b>&lt;.001</b>	0.358	<b>&lt;.001</b>
Dependent children (0 = None)	-0.072	.551		
Dependent adults (0 = None)	-0.017	.879		
Nationality (0 + Saudi)	0.123	.131		
Tenure in organization (0 = 1–4 years)	0.203	<b>.042</b>	0.188	<b>.012</b>
Salary level (0 = LT 5,000)	0.011	.902		
Nurse's experience (0 = 1–4 years)	-0.001	.991		
Work life subscales scores				
Work life/Home life	-0.045	.611		
Work design	0.074	.445		
Work context	-0.060	.581		
Work world	-0.044	.617		
Work engagement subscale scores				
Vigor	-0.265	<b>.006</b>	-0.254	<b>.006</b>
Dedication	-0.123	.197		
Absorption	0.142	.085		
Constant	3.569	<b>&lt;.001</b>	3.151	<b>&lt;.001</b>
Model summary				
	<i>F</i>	3.828	8.916	
	<i>df</i>	17/189	4/203	
	<i>p</i>	<b>&lt;.001</b>	<b>&lt;.001</b>	
	R-Square	.256	.239	
	Adjusted R-Square	.189	.212	

## **Chapter 5**

### **Analysis and Recommendations**

This chapter summarizes the study in terms of purpose, research questions, process, and results. It also offers conclusions and presents some recommendations for scholars and for human resources/organization development, workplace learning, and performance specialists in the healthcare industry. Moreover, this chapter states some self-reported limitations.

#### **Purpose of the Study**

The purpose of this study was to examine the relationship among three dimensions that may correlate with nurses' work engagement in the Saudi eastern province hospitals. These dimensions are (a) nurses' demographic factors, (b) quality of nurses' work life (QNWL), and (c) turnover intention. Three questions were developed to examine these relationships.

#### **Research Questions**

This study was guided by three research questions:

RQ1. To what extent does work engagement (vigor, dedication, and absorption) correlate with the quality of nurses' work-life dimensions (work life/home life, work context, work design, and work world)?

RQ2. What is the relationship between nurses' work engagement, demographic factors (gender, age, marital status, dependents, nationality, level of education), and employment factors (organizational tenure, nurse tenure, and payment per month)?

RQ3. To what extent does work engagement influence turnover?

### **Research Procedures**

The research started by building the instrument online using Qualtrics at Penn State. Key contacts in organizations then were contacted in order to obtain their support for employees' participation in the survey. Two survey formats were used; based on organizational needs, they were distributed either online or in paper. For the online format, a survey link was sent via email for distribution to their nurses' network. Paper surveys were handed to the nurse manager to be distributed to the nurses. The data from the collected surveys were entered into the Qualtrics survey manually, and the surveys with missing or insufficient data were voided.

Data collection delays occurred due to commitment deferrals with key personnel contacts in health centers. Not surprisingly, the process became more difficult once the researcher returned to the United States. Many phone calls went unanswered; some people requested physical meetings, which were not possible at the time. A significant obstacle was the unfortunate timing of sending the surveys right as a global computer virus was affecting large organizations in Saudi Arabia. Understandably, the timing made people apprehensive to open unknown email links. The whole process, starting from initial contact to data analysis, took eight months. The data were downloaded to the SPSS program and then labeled and analyzed to answer the research questions.

### **Research Findings**

The measures of the instruments were reliable, with  $\alpha$  ranges from .73 to .93 in the results. The research of the targeted population revealed a positive and significant relationship between each one of the three dimensions of work engagement

and the four dimensions of QNWL. Dedication had the strongest relationship with work context ( $r = .607$ ); the weakest relationship was between absorption and the work world dimension ( $r = .30$ ).

Regarding the relationship between work engagement and demographic and employment factors, it was determined that there is a positive significant correlation between nationality, organizational tenure, and having dependents adults and the level of engagement. Additionally, a significant negative correlation existed between work engagement and having dependent children.

The Pearson correlation was performed between the dimensions of work engagement as an independent variable and turnover as a dependent variable. A significant negative correlation was found between turnover and the level of vigor ( $r = -.209$ ;  $p \leq 0.001$ ) and turnover intention and dedication ( $r = -.189$ ;  $p \leq .003$ ). The total of QNWL correlated with nurses' turnover ( $r = -.154$ ;  $p \leq .011$ ). On the subscale level, work world ( $r = .014$ ;  $p \leq -.152$ ) and work context ( $r = .011$ ;  $p \leq -.159$ ) had a significant negative low correlation on the nurses' turnover.

Block hierarchal multiple regression showed that education is the single most important variable in explaining differences in turnover. Higher levels of education were associated with higher turnover scores. Vigor was the second most important variable in explaining differences in turnover.

## **Discussion**

The nurses were asked to assess their level of work engagement, quality of work life, and turnover intent through a self-reported survey. The research results indicated positive correlations between each dimension of work engagement and the four subscales

of QNWL. Dedication had the strongest relationship with work context ( $r = .607$ ), and the weakest relationship was between absorption and the work world dimension ( $r = .30$ ). Meaning, nurses who had healthy communication with co-workers and managers, received sufficient feedback, felt respected and safe, and had opportunities to further their education reported being highly engaged in their jobs. To put these relationships in context, there is a socio-technical system theory that can be referenced, which says that organizations are open, living systems that interact with the environment (Brooks & Anderson, 2005). The system of the society that exists outside the organization includes perceptions of a nursing career; these perceptions then affect nurses' work engagement.

An additional negative influence on engagement was nurses' obligations outside of work, such as having dependents who need support. This is not surprising, given that the nursing field is female dominant with family obligations, which can mentally detach the nurse from her work.

The relationship between nurses' work engagement and demographics representing the socioeconomic characteristics and employment statuses of the nurses working in the eastern province of Saudi Arabia were also explored. The demographic factors studied in this research were age, education level, marital status, gender, having dependents, and nationality. Factors that related to employment status were organizational tenure, nurses' tenure, and monthly income. The results were surprising in comparison to previous research. Baumgardner (2014) found a relationship between age and work engagement; specifically, older nurses were more engaged than younger ones. However, in this study, the demographic factors that showed correlation with work engagement were nationality, age, and having dependents (children and adults). This correlation also differed from an

anticipated connection between organizational and nurses' tenure and their work engagement, as was the case in a study in another part of Saudi Arabia that was conducted by Almalki, FitzGerald, and Clark (2012). Past studies in other parts of Saudi Arabia also found a correlation between years of experience, gender, and marital status and nurses' work engagement (Almalki, 2012; Almalki, FitzGerald, & Clark, 2012). These disparities may be related to the regional and cultural differences that are present in Saudi Arabia. Another contributing factor might be the fact that the majority of the nurses in the eastern region are Saudi citizens, and in the other regions, they are international workers. However, as international nurses spend more time in the same place, stronger connections may exist with their work or their co-workers. Additionally, older nurses may be less likely to search for jobs in another location than younger nurses.

Finally, the last relationship examined was between the work engagement dimensions and turnover. There was a significant correlation between turnover and vigor ( $r = -.209; p \leq .001$ ), and turnover and dedication ( $r = -.189; p \leq .003$ ). No relationship was found with absorption. The results of the analysis showed that the total QNWL ( $r = -.154; p \leq .013$ ) has a correlation with nurses' turnover intention. Only the work world on the subscale level influenced turnover. Work life/home life, work context, and the work design had no relationships with nurses' turnover. In the block regression model, higher levels of education were the strongest predictor of turnover; vigor and a greater amount of work experience associated negatively with turnover.

These findings were unexpected. An explanation could be that more educated nurses may have better job opportunities available to them. In addition, these nurses may also seek out better job benefits. Organizations may want to consider researching these

findings further in order to find ways to retain talented staff.

While these findings were unexpected, it should be mentioned that the results of the Almalki et al. (2012) study support these research results showing that work life/home life do not contribute to the nurses' turnover. However, Almalki et al. found that work context and work design did contribute to the nurses' turnover, which this study does not support. The disparity may relate to the difference in demographics or culture, even though both studies were conducted in Saudi Arabia. In the eastern region, nursing is more respected from the community than in the other regions of the country. Additionally, the majority of Saudi nurses may have better communication with their supervisors and each other than international nurses who may face some cultural obstacles and communication difficulties.

### **Recommendations and Implications**

The healthcare industry in Saudi Arabia has an increased need for staff in order to meet the high demands of health services. Despite this need, it has been difficult to acquire and retain nurses in this industry. This research studied the relationship between quality of nurses' work life and work engagement and the relationship between work engagement and turnover intention; the research was extended to examine the relationship between demographics and QNWL factors with turnover intention. Regarding retention, the research determined that work engagement is a greater factor than salary and benefits. Younger generations change jobs more frequently than older generations, and it is usually to seek out career satisfaction and workplace success. Human resources often see investing in employee engagement as unnecessary or challenging, but employee engagement is often connected to the organization's financial



success (Harvard Business Review, 2013).

The findings of this research provide useful information for HR/OD practitioners and scholars in healthcare organizations of Saudi Arabia. The work engagement concept is new to the workforce in Saudi Arabia, and this study is the first to connect the concept of work engagement and the quality of nurses' work life in healthcare. Therefore, this research will contribute to the literature in both of those areas of study in an attempt to improve and enhance engagement. As a result, turnover also may be reduced.

### **Academic Implications**

This study is the first of its kind conducted in Saudi Arabia; therefore, more research on work engagement and quality of work life in the healthcare industry is needed to validate results and expand the scope of knowledge. Further, given the large cultural differences among regions of the country, additional studies incorporating modified variables could be performed.

Demographic differences are apparent between Saudi-majority nursing staff in the eastern regions and international-majority nursing staff in other regions (e.g., Riyadh, north, west). Therefore, comparing the results of this research with data collected from other regions where the majority of nurses are non-citizens may explain or validate differences in work engagement.

Scholars also may consider collecting data from different departments across a variety of hospitals. Different departments of hospitals have a variety of duties that fluctuate between easy to hard and stressful. This variety in duty complexity could provide more specific results that explain the real effect of QNWL on nurses' work engagement and turnover in different work settings. For example, the relationship of the

physical and emotional demands in intensive care units could be examined. Nurses in these units have to deal with overwhelming psychological and emotional stressors most of the time, which means they need resilience as well as time to decompress before returning for another shift. Scholars could further the research developed here and examine the availability of psychological and emotional support resources and physical and health safety as study antecedents. Work engagement and turnover would be consequent variables.

In this study, gender and organization tenure didn't have a relationship with work engagement, unlike earlier research. An explanation for the lack of gender correlation could be due to societal acceptance of nursing as a career for both males and females in the eastern region. However, age and nursing career tenure were significant factors correlated positively with work engagement, even though organization tenure didn't positively correlate with work engagement as expected. The older the nurse and the more experience as a nurse, the more comfortable and engaged the nurse became. Therefore, additional analysis of the relationship between organization tenure, nurse's tenure, age, and work engagement would be beneficial to explain this finding.

A parallel study on the relationship between work engagement and quality of nurses' work life and turnover intention could provide additional useful information. In-depth interviews performed over a period of time would add to the understanding of which QNWL dimension has greater impact on the level of work engagement. Additional factors or conditions around the work place might be found to impact or influence work engagement, if accompanied by a QNWL dimension. This supplementary research could be conducted either in the private sector or the government sector due to the different

work settings and environments. A comparative study would allow for examination of similarities and differences in the two environments.

Studies also could be completed with healthcare providers other than nurses, or even in other industries in Saudi Arabia or other countries (e.g., Gulf Cooperation Council countries) that have a similar culture. Scholars can modify the antecedent (e.g., personal resources) and consequent (e.g., job performance and turnover) variables related to work engagement for broader application.

### **Practical Implications**

Commitment to a positive and engaging work culture begins at the top of the organization and works its way down, starting with its vision, mission, and goals. Therefore, HR professionals in healthcare need to take into consideration nurses' engagement and the positive or negative factors driving engagement. These factors could include different external sources, such as the work culture, management, society, or work design. They also could include internal or psychological sources, such as stress from home life, work/life imbalance, work load, or work nature. The definition of work engagement can change depending on these different work settings.

Organizations require employees to be proactive and show initiative while engaging with their roles (Bakker & Leiter, 2010). They want employees to use their energy and efforts to reach organizational strategic goals. In healthcare, patient health and satisfaction are the ultimate goals that cannot be met without a highly dedicated and energetic nursing staff who maintain strong work involvement and who engage in their work with a feeling of pride and significance. Engaged nurses work hard, are enthusiastic

about their work, and are fully engrossed in their work activities (Bakker & Demerouti, 2008).

Healthcare management may build on this initial research by investing in a customized engagement survey that goes beyond employee satisfaction and identifies drivers of employee engagement in order to analyze the needs and preferences of employees. The data can be used to find out what is working and what can be improved, leverage engagement initiatives and goal alignment on every level of the organization, create a foundation for developing new policies or revising existence policies, and complete further assessment and exploration.

Organizations may also use this study to help them to determine engagement drivers for each employee. For example, a young male in his mid-20s may need an environment that allows him to choose from a variety of career development options. A woman in her mid-20s may have the same work engagement drivers but also need a safe work environment free of harassment.

Connecting work engagement to work performance should be the focus of management in organizations. On one hand, positive work engagement can lead to positive work performance, resulting in quality healthcare services, highly satisfied patients, and a positive organization reputation. Work engagement has been linked to high productivity, creativity, and success (Bakker & Leiter, 2010). Highly engaged workforces are innovative, creative, highly productive, and have less intention to switch jobs, as suggested from this study and other studies in the healthcare industry. Spending considerable effort in engaging the current workforce will benefit the organization in cost reduction related to hiring, training, and retaining new nurses in a highly competitive

market. HR professionals should ensure that the workplace culture and employee engagement strategies are considered on the same level of importance as financial incentives.

On the other hand, unengaged employees have less concentration and focus, which means more work errors. Medical errors affect the lives of thousands of people every year. According to *Harvard business review* (Sherwood, 2013), a study of 200 hospitals, found the level of nurses' engagement had the strongest correlation with mortality. In addition, a correlation existed between engagement and work safety, which also has an impact on patient health and satisfaction. According to *Gallup News* (2005), increasing the number of nurses in healthcare organizations may to some extent reduce exhaustion related to heavy work load. In addition to less fatigue, having sufficient staff reduces the need for overtime hours (Blizzard, 2005).

In the light of this information, healthcare organizations could re-engineer different aspects of the work environment:

- Build an engaging workplace culture, not just a momentary stage of change.  
Communicate the purpose, mission, and vision of the organization to employees and make engagement an important part of the organization's purpose. Employees need to understand how their jobs are essential to achieving the organization's goals.
- Build an environment of trust and respect between all levels of employees.
- Offer career development opportunities and training programs onsite or with other institutions. Employees should have flexible schedules that meet their personal, career development, and job obligations. Research has shown that employees are

more attached to their organizations and become better citizens when organizations invest in their formal or informal learning; examples include classroom trainings, conferences, forums, collaboration, online sources, and coaching (Bulut & Culha, 2010; Pomtefract, 2014).

- Encourage individualism and teamwork that aims to respect different ideas and unique skill sets that distinguish employees from one another.
- Revise job descriptions and provide new employee training and workshops to make nurses aware of performance and job expectations.
- Provide rewards and feedback to show appreciation of employees' efforts. Regular and frequent performance feedback encourages positive behaviors and identifies problems early.
- Evaluate the level of work engagement and QWL. Assessment instruments can include the needed dimensions of QWL to connect them to employees' work engagement. The interpretation of the results could be used for further assessment and training and development purposes, change efforts, or policy development/modification.
- Measure work engagement through different approaches. HR should consider measuring work engagement through quantitative approaches, such as surveys followed by in-depth interviews and focus groups to validate the survey, and qualitative approaches, such as observations. Meaningful business metrics can be developed to identify the work engagement drivers for different groups in the same work setting, which should be put into action to bring about sustainable change.

- Increase awareness of the roles nurses play in healthcare services. This can be accomplished by utilizing the local media. Managers can encourage nurses to conduct educational seminars for the community and schools. Healthcare centers can host open houses for high school students to explore a career in nursing and humanize it beyond the typical mindset held in the community.

To implement changes in work engagement, HR/OD practitioners can start by designing and implementing training programs that facilitate and define work engagement. HR/OD practitioners should assess and analyze four variables in the current job setting: personal resources, job resources, employees' work engagement, job performance, and turnover intention. Then, they could predict the factors of the current work setting that influence work engagement. Research data will help to build a strong case in the need for these programs and improve the chances of garnering support from top executives. Evidence of the impact of the current work engagement level on the employees' performance and turnover intention will support this need. Additionally, when training programs are subsequently created based on research results, these programs will have a strong chance for success in building an engaging work environment. Nurses' executives and managers should be included in the change effort to help nurses to accept the change. One approach for convincing nurses is to explain the concept of work engagement and the benefits of it for them personally and professionally and encourage them to use the available recourses in the workplace. Engaging them in work will extend the benefits for the organization, patients, and work environment in general (Kim, 2014).

### **Future Research**

Studies should be conducted in a variety of healthcare department because of the differences in work environments among departments. For example, intensive care units may have different work engagement levels than what exists in radiology. Data could be collected and compared in both private and government sectors due to the differing working hours, systems, and benefits.

Future studies could be done in other regions of the country that have not been studied in order to get comparative data on the nurses in Saudi Arabia. A qualitative research and in-depth interviews with a representative sample of nurses would give more detailed information about the factors that contribute to nurses' work engagement.

### **Limitations**

The study included all nurses working in different departments of healthcare in the eastern province of Saudi Arabia. This can be a considerable limitation because engagement level and quality of work life can vary from department to department. For example, nurses working in an ICU may have different work-life needs than nurses working in the ER or radiology, which can affect their level of engagement. Further research is needed to determine the nature of work engagement and work-life quality in each healthcare department.

Another limitation of this survey is that data do not indicate whether the nurse worked a day or night shift. In MOH hospitals, nurses' shifts change every two weeks; in private, small health centers, there are fixed working hours from morning to evening with two shifts—no changes. Nurses working night shifts, especially women with children, may have different perceptions of work life and work engagement than nurses with



daylight working hours.

The data of this study, like most empirical studies on work engagement, were collected using self-reported instruments that lead to a same source/common method bias that might affect the results of the research (Podsakoff et al., 2003). This bias can be minimized by collecting data using external data from multiple sources. Future studies could also examine employees' behavioral indicators, as found in the company files collected over a period of time, if such data are available as secondary data. This information would provide accurate data about actual turnover and absenteeism, which might relate to employees' work engagement.

## References

- Aboul-Enein, F. H. (2002). Personal contemporary observations of nursing care in Saudi Arabia? *International Journal of Nursing Practice*, 8, 228–230.
- AbuAlRub, R. F. (2007). Nursing shortage in Jordan: What is the solution? *Journal of Professional Nursing*, 23(2), 117–120.
- Abu-Zinadah, S. (2004). The situation of Saudi nursing. *Health Forum*, 52, 42–43.
- Abu-Zinadah, S. (2005). *The inception of nursing regulation in Saudi Arabia*. 3rd International Nursing Conference, Muscat, Sultanate of Oman.
- Abu-Zinadah, S. (2007). Nursing staff and patient safety. *Health Forum*, 79, 22–23.
- Abu-Zinadah, S., & Banjar, H. (2006). Saudi nursing. *Health Forum*, 67, 34–38.
- Al-Ahmadi, H. (2006). Determinants of nurses' turnover in psychiatric hospitals in Saudi Arabia [electronic version]. *Journal of Social Sciences*, 34(4). Available at: <http://pubcouncil.kuniv.edu.kw/jss/english/showarticle.asp?id=1978> (accessed 22 January 2011) .
- Alamri, A. S., Rasheed, M. F., & Alfawzan, N. M. (2006). *Reluctance of Saudi youth towards the nursing profession and the high rate of unemployment in Saudi Arabia: Causes and effects*. King Saud University, Riyadh.
- Aldossary, A., While, A., & Barriball, L. (2008). Health care and nursing in Saudi Arabia. *International Nursing Review*, 55, 125–128.
- Al-Freihi, H. (2009). A meeting with the secretary-general of the Saudi commission for health specialties. *Health Forum*, 103, 5–7.
- Alharthi, F. (1999). *Health over a century*. Riyadh: Ministry of Health and ASBAR Centre for Studies Research and Communication.

- Alhusaini, H. A. (2006). *Obstacles to the efficiency and performance of Saudi nurses at the Ministry of Health, Riyadh Region: Analytical Field Study*. Ministry of Health, Riyadh.
- Aljuhani, A. M., & Kishk, N. A. (2006). Job satisfaction among primary health care physicians and nurses in Al-madinah Al-munawwara. *The Journal of the Egyptian Public Health Association*, 81(3–4), 80–165
- Almalki, M. J. (2012) *Quality of work life and turnover intention in primary healthcare organizations: A cross-sectional study of registered nurses in Saudi Arabia*. Queensland University of Technology: Faculty of Health, Ph.D Thesis.
- Almalki, M., FitzGerald, G., & Clark, M. (2011). Health care system in Saudi Arabia: An overview. *The Eastern Mediterranean Health Journal*, 17(10), 784–793.
- Almalki, M., FitzGerald, G., & Clark, M. (2011). The nursing profession in Saudi Arabia: An overview. *International Nursing Review*, 58(3), 304–311. doi:10.1111/j.1466-7676
- Almalki, M. J., FitzGerald, G., & Clark, M. (2012). The relationship between quality of work life and turnover intention of primary health care nurses in Saudi Arabia. *BMC Health Services Research*, 12(1), 314-314. doi:10.1186/1472-6963-12-31457.2011.00890.x
- Almalki, M. J., FitzGerald, G., & Clark, M. (2012). Quality of work life among primary health care nurses in the Jazan region, Saudi Arabia: A cross-sectional study. *Human Resources for Health*, 10(1), 30-30. doi:10.1186/1478-4491-10-30

- Al-Omar, B. A. (2004). Knowledge, attitudes and intention of high school students towards the nursing profession in Riyadh City, Saudi Arabia. *Saudi Medical Journal*, 25(2), 150–155.
- Al-Sa'd, A. (2007). Quantum leap for Saudi nursing. *Health Forum*, 79, 39.
- Al Thagafi, H. H. (2006). *Change of Attitudes towards the nursing profession for a sample of Saudi youth through a counselling program: Experimental study on a sample of students*. Master's thesis. Naif Arab University for Security Sciences, Riyadh, Saudi Arabia.
- Alzahmi, R. A., & Buchko, O. V. (2014). Metrics and Instruments for measuring engagement. In W. J. Rothwell (Ed). *Creating engaged employees: It's worth the investment* (pp. 19-33). Alexandria, VA: ASTD Press.
- Astrauskaite, M., Vaitkeviicius, R., & Perminas, A. (2011). Job satisfaction survey: A confirmatory factor analysis based on secondary school teachers' sample. *International Journal of Business and Management*, 6(5), 41-50
- Bakker, A. B. (2009). Building engagement in the workplace. In R. J. Burke & C. L. Cooper (Eds.), *The peak performing organization* (pp. 50–72). Abingdon, UK: Routledge.
- Bakker, A. B. (2011). An evidence-based model of work engagement. *Current Directions in Psychological Science*, 20, 265–269.
- Bakker, A. B., Albrecht, L., & Leiter, M. P. (2011). Key questions regarding work engagement, *European Journal of Work and Organizational Psychology*, 20(1), 4–28.

- Bakker, A. B., & Demerouti, E. (2008). Toward a model of work engagement. *Career Development International*, 13(3), 209–223. doi 10.1108/13620430810870476
- Bakker, A. B., Demerouti, E., De Boer, E., & Schaufeli, W. B. (2003). Job demands and job resources as predictors of absence duration and frequency. *Journal of Vocational Behavior*, 62, 341–356.
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands–resources model to predict burnout and performance. *Human Resource Management*, 43, 83–104.
- Bakker, A. B., Demerouti, E., Taris, T. W., Schaufeli, W. B., & Schreurs, P. J. (2003). A multigroup analysis of the job demands-resources model in four home care organizations. *International Journal of stress management*, 10(1), 16
- Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high, *Journal of Educational Psychology*, 99, 274–284.
- Bakker, A.B., Leiter, M.P. (2010). Work engagement: A handbook of essential theory and research. New York: Psychology press.
- Barnes, H., Parry, J. & Lakey, J. (2002). *Forging a new future: The experiences and expectations of people leaving paid work over 50*. UK, Bristol: Policy Press;.
- Baumann, A., & O'Brian-Pallas, L. (1993). Nurses' work life: Researching the quality. *Canadian Nurse*, 89(1), 40–41.
- Baumgardner, C. Z. (2014). *Critical demographic and workplace factors that influence work engagement in nursing practice in Pennsylvania* (Doctoral dissertation).

- Retrieved November 25, 2015, from <https://etda.libraries.psu.edu/paper/20203>
- Beishon, S., Virdee, S., & Hagell, A. (1995). *Nursing in a Multi-ethnic NHS* (No. 775). Policy Studies Institute.
- Bjork, I.T., Samdal, G.B., Hansen, B.S., Torstad, S., & Hamilton, G. A. (2007). Job satisfaction in a Norwegian population of nurses: A questionnaire survey. *International Journal of Nurses Studies*, 44(5), 747–757.
- Boonrod, W. (2009). Quality of working life: Perceptions of professional nurses at Phramongkutklao Hospital. *Journal of Medical Association of Thailand*, 92(1), 7–15.
- Bulut, C ., & Culha, O. (2010). The effects of organizational training on organizational commitment. *International Journal of Training and Development*, 14(4).
- Buchan. J., Calman. L., (2004). Skill-mix and policy change in the health workforce: nurses in advanced roles, OECD health working papers, 17. Paris: OECD
- Blizzard, R. (2005). Nurses engagement key to reducing medical errors. Retrieved from Gallup: [www.gallup.com/poll/20629/Nurse-Engagement-Key-Reducing-Medical-Errors.aspx](http://www.gallup.com/poll/20629/Nurse-Engagement-Key-Reducing-Medical-Errors.aspx)

- Brooks, B. A. (2001). *Development of an instrument to measure quality of nurses' worklife*. University of Illinois at Chicago: Health Sciences Center. Ph.D. Thesis.
- Brooks, B. A., & Anderson, M. A. (2005). Defining quality of nursing work life. *Nursing Economics*, 23(6), 319.
- Brooks, B. A., & Anderson, M. A. (2004). Nursing work life in acute care. *Journal of Nursing Care Quality*, 19(3), 269–275.
- Brooks, B. A., Storfjell, J., Omoike, O., Ohlson, S., Stemler, I., Shaver, J., & Brown, A. (2007). Assessing the quality of nursing work life. *Nursing Administration Quarterly*, 31(2), 152–157.
- Caplan, R. D., Cobb, S., French Jr, J. R., Harrison, R. V., & Pinneau Jr, S. R. (1975). Job demands and worker health: Main effects and occupational differences.
- Cherns, A., & Davis, L. (1975). *The quality of work life* (Vol. 1). New York, NY: Free Press.
- Cherons, A. (1976). The principles of sociotechnical design. *Human Relations*, 10, 176–193
- Clarke, P., & Brooks, B. (2010). Quality of nursing worklife: Conceptual clarity for the future. *Nursing Science Quarterly*, 23(4), 301–305
- Colarelli, S. M. (1982). *Methods of communication and job information, reactions to the job, and job survival: A field experiment* (Doctoral dissertation). Retrieved from <http://ezaccess.libraries.psu.edu/login?url=http://search.proquest.com.ezaccess.libraries.psu.edu/docview/303071954?accountid=13158>

- Cox, K., Bergen, A., & Norman, I. (1993). Exploring con- The World Bank (2015) Data: Urban population. Retrieved from:  
<http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS>
- Davis, L., & Trist, E. (1974). Defining work life. In J. O'Toole (Ed.), *Work and the quality of life: Resource papers for work in America*. Cambridge, MA: MIT Press.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout, *Journal of Applied Psychology*, 86, 498–512.
- Dillman, D. A. (2007). Mail and internet surveys: The tailored design method. (2nd ed.). Hoboken, NJ: Wiley & Sons, Inc.
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). Internet, phone, mail, and mixed-mode surveys: The tailored design method (4th ed.). Hoboken: Wiley.
- El-Gilany, A., & Al-Wehady, A. (2001). Job satisfaction of female Saudi nurses. *East Mediterr Health J*, 7(1/2): 31–37.
- Emadzadeh, M. K., Khorasani, M., & Nematizadeh, F.(2012). Assessing the quality of work life of primary school teachers in Isfahan city *Interdisciplinary Journal of Contemporary Research In Business*, 3(9), 438–448.
- Fang, Y. (2001). Turnover propensity and its causes among Singapore nurses: An empirical study. *International Journal of Human Resource Management*, 12(5), 859–871.
- FitzGerald, K., Seale, N. S., Kerins, C. A., & McElvaney, R. (2008). The critical incident technique: A useful tool for conducting qualitative research. *Journal of Dental Education*, 72(3), 299



- Flanagan, J. C. (1954). The critical incident technique. *The Psychological Bulletin*, 51(4), 327–358.
- Fochsen, G., et al. (2006). Predictors of leaving nursing care: A longitudinal study among Swedish nursing personnel. *Occupational and Environmental Medicine*, 63, 198–201.
- Fowler, F. J. (2014). Survey research methods. (5th ed.). Thousand Oaks, CA: SAGE Publications.
- Gill, D. S. (2007). Employee selection and work engagement: Do recruitment and selection practices influence work engagement? PhD dissertation , Kansas University.
- Gorgievski, M. J., Bakker, A. B., & Schaufeli, W. B. (2010). Work engagement and workaholism: Comparing the self-employed and salaried employees. *Journal of Positive Psychology*, 5, 83–96.
- Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. *Research in Organizational Behavior*, 28, 3–34.
- Goffman, E. (1961). *Encounters: Two studies in the sociology of interaction*. Indianapolis: Bobbs-Merrill.
- Gupta, M., & Sharma, P. (2011). Factor credentials boosting quality of work life of BSNL employees in Jammu region. *Sri Krishna International Research & Educational Consortium*, 2(1), 79–89.
- Hackman, J. (1980). Work redesign and motivation. *Professional Psychology*, 11, 445–455.

- Hakanen, J. (2002). From burnout to job engagement – validation of the Finnish version of an instrument for measuring job engagement (UWES) in an educational organization. *Työ ja Ihminen, 1*(16), 42–58.
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of school psychology, 43*(6), 495-513
- Hakanen, J. J., & Roodt, G. (2010). Using the job demands-resources model to predict engagement: Analysis a conceptual model. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research*. New York, NY: Psychology Press.
- Hart, S. E. (2005). Hospital ethical climates and registered nurses' turnover intentions. *Journal of Nursing Scholarship, 37*(2), 173–177. Retrieved from <http://search.proquest.com.ezaccess.libraries.psu.edu/docview/236351664?accountid=13158>
- Harter, J. K., Schmidt, F. L. & Hayes, T. L. (2002). Business-unit-level relationships between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87*, 268–279.
- Hingley, P. (1984). The humane face of nursing. *Nursing Mirror, 159* (21). 19-22.
- Hinshaw, A. S., Atwood, J. R. (1984). Anticipated turnover among nursing staff study: Final report. Tucson, AZ: National Centre for Nursing Research and National Institute of Health, University of Arizona
- Hobfoll, S. E., Johnson, R. J., Ennis, N. & Jackson, A. P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women, *Journal of Personality and Social Psychology, 84*, 632–643.

- Hsu, M., & Kernohan, G. (2006). Dimensions of hospital nurses' quality of working life. *Journal of Advanced Nursing*, 54(1), 120-131. doi:10.1111/j.1365-2648.2006.03788.x
- Hinshaw, A. S., & Atwood, J. R. (1984). Anticipated turnover among nursing staff study: Final report. Tucson, AZ: National Centre for Nursing Research and National Institute of Health, University of Arizona.
- Higgs, P., Mein, G. Ferrie, J., Hyde, M., & Nazroo, J. (2003). Pathways to early retirement: Structure and agency in decision-making among British civil servants. *Ageing Society*, 23:761–778.
- James, J.B., Mckechnie, S., and Swanberg, J. (2011). Predicting employee engagement in an age –diverse retail workforce. *Journal of Organizational Behavior*, 32, 173-196. doi: 10.1002/job.681
- Judge, T. A., Bono, J. E., Erez, A. & Locke, E. A. (2005). Core self-evaluations and job and life satisfaction: the role of self-concordance and goal attainment. *Journal of Applied Psychology*, 90, 257–268.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692.
- Kanten, S., & Sadullah, O. (2012). An empirical research on relationship quality of work life and work engagement. *Procedia - Social and Behavioral Sciences*, 62, 360–366.
- Khani A., Jaafarpour, M., & Dyrekvandmogadam, A. (2008). Quality of nursing work life. *Journal of Clinical Diagnostic Research*, 2(6), 1169–1174.

- Kim, W. (2014). *An Examination of Work Engagement in Selected Major Organizations in Korea: Its Role as a Mediator Between Antecedents and Consequences* (Pennsylvania (Doctoral dissertation). Retrieved November 25, 2015, from <https://etda.libraries.psu.edu/paper/20601/>
- Levine, M., Taylor, J. A., & Davis. L. (1984). Defining quality of work life. *Human*
- Lewis, D., Brazil, K., Krueger, P., Lohfeld, L. & Tjam, E. (2001). Extrinsic and intrinsic determinants of quality of work life. *Leadership Health Services, 14*, 9–15.
- Relations, 37*, 81–104.
- Leiter, M. P., & Maslach, C. (2009). Nurse turnover: The mediating role of burnout. *Journal of Nursing Management, 17*(3), 331-339. doi:10.1111/j.1365-2834.2009.01004.x
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. Oxford, UK: Oxford University Press.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach Burnout Inventory manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C., & Leiter, M. P. (1997). *The truth about burnout*. San Francisco: Jossey-Bass.
- Maslach, C., Leiter, M. P., & Schaufeli, W.B. (2008). Measuring burnout. In C.L. Cooper & S. C artwright (Eds.), *The oxford handbook of organizational well-being* (86-108). Oxford , UK: Oxford University Press.
- Meijman, T. F., & Mulder, G. (1998). Psychological aspects of workload. In P. J. D. Drenth & H. Thierry (Eds.), *Handbook of work and organizational psychology, Vol. 2. Work psychology* (pp. 5–33). Hove, UK: Psychology Press.

- Ministry of Health (2008). Health Statistical Year Book. Ministry of Health, Riyadh
- Ministry of Health (2012). Health Statistical Year Book. Ministry of Health, Riyadh
- Montgomery, D. C., & Runger, G. C. (2010). *Applied statistics and probability for engineers*. John Wiley & Sons.
- Mor Bara, M. E., Nissly, J. A., & Levin, A. (2001). Antecedents to retention and turnover among child welfare, social work, and other human service employees: What can we learn from past research? A review and meta-nalysis. *Society Service Review Journal*, 75(4), 625–661.
- Nasl Saraji, G., & Dargahi, H. (2006). Study of quality of work life (QWL). *Iranian Journal of Public Health*, 35(4), 8–14.
- Nazir, U., Qureshi, T. M., Shafaat, T., & I. A., (2011). Office harassment: A negative influence on quality of work life. *African Journal of Business Management*, 5(25), 10276–10285.
- Noor, S. M., & Abdullah, M. A. (2012). Quality work life among factory workers in Malaysia. *Procedia, Social and Behavioral Sciences*, 35, 739–745.
- O'Brian-Pallas, L., & Baumann, A. (1992). Quality of nursing work life issues: A unifying framework. *Canadian Journal of Nursing Administration*, 5(2), 12–16.
- Vagharseyyedin, S. A., Vanaki, Z., & Mohammadi, E. (2011). The nature nursing quality of work life: An integrative review of literature. *Western Journal of Nursing Research*, 33(6), 786-894
- Park, M. J. (2015). The relationship of change readiness and work engagement in manufacturing organizations in south-central Pennsylvania (Doctoral dissertation). Retrieved November 25, 2015, from

- <https://etda.libraries.psu.edu/paper/20203>
- Parker, S. K., & Ohly, S. (2008). Designing motivating jobs. In R. Kanfer, G. Chen, & R. Pritchard (Eds.), *Work motivation: Past, present, and future* (pp. 233–384). New York, NY: Routledge.
- Pasmore, W. A., Frances, C. Haldeman, J., & Shani, A. (1988). Sociotechnical systems: A North American reflection of empirical studies of the seventies. *Human Relations*, 35, 1179–1204.
- Phillipson, C., & Smith, A. (2005). Extending working life: A review of the research literature, Norwich: Department for Work and Pensions
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.  
<http://dx.doi.org/10.1037/0021-9010.88.5.879>
- Pomtefract, D. (2014). Pervasive learning: Formal, informal, and social. In E. Biech. (Ed). *ASTD handbook: The definitive reference for training and development (2ed Ed)*, 393-406: Alexandria, VA: ASTD Press.
- Rambur, B., Palumbo, M.V., McIntosh, B., Mongeon, J. (2003). A statewide analysis of RNs' intention to leave their position. *Nurse Outlook*, 51(4), 182–188.
- Rout, U. (2000). Stress amongst district nurses. A preliminary investigation. *Journal of Clinical Nursing*, 9(3), 303–309.
- Rose, R.C., Beh, L., Uli, J., & Idris, K., (2006). Quality of work life: Implications of Career Dimensions. *Journal of Social Sciences*, 2(2), 61–67.

- Saks, A. M. 2006. Antecedents and consequences of employee engagement. *Journal of Managerial Psychology* 21: 600–619.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293–315. Retrieved from: <http://www.jstor.org.ezaccess.libraries.psu.edu/stable/4093692>
- Schaufeli, W. B., Martinez, I. M., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university student: A cross-national study. *Journal of Cross Cultural Psychology*, 33(5), 464-481. doi:10.1177/0022022102033005003
- Shields, M. A., Ward, M. (2001). Improving nurse retention in the national health service in England: The impact of job satisfaction on intentions to quit. *Journal of Health Economics*, 20(5), 677–701.
- Schalk, D. M., Bijl, M. L., Halfens, R. J., Hollands, L., & Cummings, G. G. (2010). Interventions aimed at improving the nursing work environment: A systematic review. *Implementation Science: IS*, 5(1), 34-34. doi:10.1186/1748-5908-5-34
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). *Educational and Psychological Measurements*, 66(4). 701-716. doi: 10.1177/0013164405282471
- Secombe, I. J., Patch, A., & Stock, J. (1994). *Workloads, pay and morale of qualified nurses in 1994*. Institute of Manpower Studies.
- Sherwood, R. (2013). Employee engagement drives health care quality and financial returns. Harvard Business Review Blog Network. Retrieved from <http://blogs.hbr.org/2013/10/employee-engagement-drives-health-care-quality-and-financial-returns/>

- Shirom, A., & Melamed, S. (2005). 39 Does burnout affect physical health? A review of the evidence. In A. Antoniou and C. Cooper (Eds.), *Research companion to organizational health psychology*, 599, 622. Northampton, MA: Edward Elgar Publishing.
- Shirom, A., & Melamed, S. (2006). A comparison of the construct validity of two burnout measures in two groups of professionals. *International Journal of Stress Management*, 13(2), 176.
- Shuck, B., Reio, T. G. Jr., & Rocco, T. S. (2011). Employee engagement: An examination of antecedent and outcome variables. *Human Resource Development International*, 14(4), 427-445. doi:10.1080/13678868.2011.601587
- Sochalski, J. (2002). Nursing shortage redux: Turning the corner on an enduring problem. *Health Affairs*, 21(5), 157–164.
- Spector, P. E. (1997). *Job satisfaction: Application, assessment, cause, and consequences*. Thousand Oaks, CA: SAGE Publication
- Storm, K., & Rothmann, I. (2003). A psychometric analysis of the Utrecht Work Engagement Scale in the South African police service. *South African Journal of Industrial Psychology*, 29, 62–70.
- Taylor, J. (1978). An empirical examination of the dimensions of quality of working life. *Omega: International Journal of Management Science*, 6, 153–160.
- The world health organization. (2013). *The world health report 2013, Health systems: improving performance*. Geneva, World Health Organization



- Tabassum, A., Rahman, T., & Jahan, K. (2011). A comparative analysis of quality of work life among the employees of local private and foreign commercial banks in Bangladesh. *World Journal of Social Sciences*, 1(1), 17–33.
- Tabachnick, B. G., & Fidell, L. S. (2007). Using multivariate statistics. (5th ed.). Boston, MA: Pearson.
- Tourangeau, A. E., & Cranley, L. A. (2006). Nurse intention to remain employed: Understanding and strengthening determinants. *Journal of Advanced Nurse*, 55(4), 497–509.
- Tumulty, G. (2001). Professional development of nursing in Saudi Arabia. *Journal of Nursing Scholarship*, 33(3), 285–90. Retrieved from:  
<http://search.proquest.com.ezaccess.libraries.psu.edu/docview/236440088?accountid=13158>
- Turale, S., Ito, M., Nakao, F. (2008). Issues and challenges in nursing and nursing education in Japan. *Nurse Education Practice*, 8(1), 1–4.
- Urdan, T. C. (2010). *Statistics in plain English* (3rd ed). London, England: Taylor & Francis.
- Van den Broeck, A., Vansteenkiste, M., de Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout and engagement: The role of basic psychological need satisfaction. *Work and Stress*, 22, 277–294.
- Van Rooyen, D., Telford-Smith, C. D., & Strümpher, J. (2010). Nursing in Saudi Arabia: Reflections on the experiences of South African nurses. *Health SA Gesondheid*, 15(1), 1E. doi:10.4102/hsag.v15i1.500

- Walton, R. E. (1975). Criteria for quality of working life. In L. E. Davis & A. B. Cherns (Eds.), *The quality of working life* (pp. 99–104). New York: The Free Press.
- Weiss, D. J., Weiss, R. V., England, G. W & Lofquist, L. H. (1967). *Manual for the Minnesota satisfaction questionnaire*. Minneapolis: Work adjustment project, industrial relations center, University of Minnesota. Retrieved from <http://vpr.psych.umn.edu/assets/pdf/Monograph%20XXII%20-%20Manual%20for%20the%20MN%20Satisfaction%20Questionnaire.pdf>
- Worrell, T. G. (2004). School psychologists job satisfaction: Ten years later. PhD dissertation., Virginia Polytechnic Institute and State University.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E. & Kantas, A. (n.d.). The measurement of burnout and engagement: A cross-cultural study comparing Greece and The Netherlands. *New Review of Social Psychology* (in press).
- Yi-Wen, Z., & Yi-Qun, C. (2005). The Chinese version of the Utrecht work engagement scale: An examination of reliability and validity. *Chinese Journal of Clinical Psychology*, 13, 268–270.
- Zaghloul, A. A., Al-Hussaini, M. F., & Al-Bassam, N. K. (2008). Intention to stay and nurses' satisfaction dimensions. *Journal of Multidisciplinary Healthcare*, 1, 51. doi:10.2147/JMDH.S3804
- Zadeh, Y.S., Mansoori, H., Farid, D. (2008). Study of the relation between quality of work life and productivity of human resources in health care institutes: A case study among nurses in Shahid Sadughi Hospital in Yazd. *Journal of Urmia Nursing and Midwifery Faculty*, 6(2), 61–70

## Appendix A

### Instrument The Relationship between Quality of Nurses' Work-life and Work

#### Engagement

Please choose only one answer for the following statements

<b>Q1 Age</b> <ul style="list-style-type: none"><li>- 21~29</li><li>- 30~39</li><li>- 40~49</li><li>- 50~</li></ul>	<b>Q2 Gender</b> <ul style="list-style-type: none"><li>- Male</li><li>- Female</li></ul>
<b>Q3 Highest Educational Level</b> <ul style="list-style-type: none"><li>- Institute (2 years)</li><li>- Diploma (3 years)</li><li>- Bachelor or higher (4 years and more)</li></ul>	<b>Q4 Marital Statues</b> <ul style="list-style-type: none"><li>- Never married</li><li>- Divorced</li><li>- Widowed</li><li>- Married</li></ul>
<b>Q5 Dependents (you can choose both)</b> <ul style="list-style-type: none"><li>- Children</li><li>- Adults</li></ul>	<b>Q6 Salary per month</b> <ul style="list-style-type: none"><li>- Less than 5000</li><li>- 5001~10000</li><li>- More than 10000~</li></ul>

(Continued)

Please choose only one answer for the following statements

<p><b>Q7 Nationality</b></p> <ul style="list-style-type: none"> <li>- Saudi</li> <li>- Non-Saudi</li> </ul>	<p><b>Q8 Organization tenure in years</b></p> <ul style="list-style-type: none"> <li>- 1~4</li> <li>- 5~9</li> <li>- More than10~</li> </ul>
<p><b>Q9 Nurse tenure in years</b></p> <ul style="list-style-type: none"> <li>- 1~4</li> <li>- 5~9</li> <li>- More than 10~</li> </ul>	

**Please provide your response based on the directions before each statement set.**

The statements are to determine nurses' feelings in the workplace. The scale starts with (0), which means they haven't had the feeling before, or they may indicate how often they have the feeling, ranging from (1) to (6).

	Almost					
	never	Rarely	Sometimes	Often	Very Often	Always
0	1	2	3	4	5	6
	A few	Once a	A few		A few	
	times a	month or	times a	Once a	times a	
Never	year or less	less	month	week	week	Every day

	0	1	2	3	4	5	6
1 At my work, I feel bursting with energy.							
2 At my job, I feel strong and vigorous.							
3 I am enthusiastic about my job.							
4 My job inspires me.							
5 When I get up in the morning, I feel like going to work.							
6 I feel happy when I am working intensely.							
7 I am proud of the work I do.							
8 I am immersed in my work.							
9 I get carried away when I am working.							

To what level you agree or disagree with each item on a 6-point scale ranging from (1) 'strongly disagree' to (6) 'strongly agree'.

1	2	3	4	5	6
<b>Strongly</b>	Disagree	Moderately	Moderately	Agree	Strongly
<b>Disagree</b>		Disagree	Agree		Agree

Item	1	2	3	4	5	6
1-I have energy left after work						
2-The organization's policy for vacations is appropriate for me and for my family						
3-I'm able to balance work with family needs						
4-It's Important to have support for taking care of elderly parents*						
5-It's Important to have on-site/near child care services*						
6-The system of shifts negatively affects my life*						
7-There are enough registered nurses in my work setting						
8- I receive quality assistance from nursing assistants and service workers						
9-I experience interruptions during daily work routine*						
10-I perform many non-nursing tasks (ex. cleaning beds, emptying garbage..etc) *						
11-I receive sufficient assistance from nursing assistants and service workers						
12-My workload is too heavy*						

(Continued)

To what level you agree or disagree with each item on a 6-point scale ranging from (1) ‘strongly disagree’ to (6) ‘strongly agree’.

1	2	3	4	5	6
<b>Strongly</b>	Disagree	Moderately	Moderately	Agree	Strongly
<b>Disagree</b>		Disagree	Agree		Agree

Item	1	2	3	4	5	6
13-I have autonomy to make client/patient care decisions						
14-I’m able to provide quality client/patient care						
15-I have enough time to do jobs						
16-I’m satisfied with job as a nurse						
17-I’m able to communicate well with my management and supervision						
18-I’m recognized for my accomplishments by my nurse manager/supervisor						
19-My nurse manager/supervisor provides adequate supervision						
20-I’m able to participate in decisions made by nurse manager/supervisor						
21-I feel upper-level management has respect for nursing						
22-I receive enough feedback on my performance by nurse manager/supervisor						
23-Nursing policies and procedures facilitate the work						
24-I have good communication with nurse manager/supervisor						
25-I feel like there is teamwork in my work setting						
26- I communicate well with physicians in my work setting						

(Continued)

To what level you agree or disagree with each item on a 6-point scale ranging from (1) ‘strongly disagree’ to (6) ‘strongly agree’.

1	2	3	4	5	6
<b>Strongly</b>	Disagree	Moderately	Moderately	Agree	Strongly
<b>Disagree</b>		Disagree	Agree		Agree

Item	1	2	3	4	5	6
27-I feel respected by physicians						
28-I have good communication with other co-workers						
29-I have friendships with co-workers						
30-I receive support to attend continuing education/training programs						
31-I get Career advancement opportunities						
32-It’s important to have the opportunity to further nursing education*						
33-I feel the security department provides secure environment						
34-I have adequate client/patient care supplies and equipment						
35-I feel safe from personal harm at work						
36-I feel like I belong to the workplace						
37-It’s Important to have break area for nurses*						
38-I believe that the society has the correct image of nurses						

(Continued)



To what level you agree or disagree with each item on a 6-point scale ranging from (1) ‘strongly disagree’ to (6) ‘strongly agree’.

1	2	3	4	5	6
<b>Strongly</b>	Disagree	Moderately	Moderately	Agree	Strongly
<b>Disagree</b>		Disagree	Agree		Agree

Item	1	2	3	4	5	6
39-I would be able to find the same job in another organization with about the same salary and benefits						
40- I feel my salary is adequate to my job given the current job market conditions						
41-I feel my job is secure						
42-Nursing work positively impact the lives of others						

**Please indicate your level of agreement with each statement**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I frequently think of quitting my job					
I am planning to search for a new job during the next 12 months					
If I have my own way, I will work for this organization one year from now.					

## **Appendix B**

### **Implied Informed Consent Form for Social Science Research The Pennsylvania**

### **State University**

#### **Title of Project**

The Relationship between the Quality of Nurses' Work Life and  
Nurses' Work Engagement

#### **Principal Investigator**

Zakiya O. Alsadah

Phone: (+1) (814) 321-7679

Email: zua3@psu.edu

#### **Advisor**

Dr. Judith Kolb

310B Keller Building, University Park, PA 16802

Email: Jak18@psu.edu

#### **Purpose of the Study**

The purpose of this study is to examine the relationship among three dimensions that may correlate with nurses' work engagement in the Saudi eastern province hospitals. These dimensions are: (a) nurses' demographic factors; (b) quality of nurses' work life (QNWL); and (c) turnover intention.

**Procedures to be followed**

You will be asked to answer 12 questions on this survey.

**Duration**

It will take about 10 minutes to complete the survey.

**Statement of Confidentiality**

Your participation in this research is confidential. However, your confidentiality will be kept to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet by any third parties. The data will be stored and secured in a password-protected file. In the event of any publication or presentation resulting from the research, no personally identifiable information will be shared because your name is in no way linked to your responses.

**Right to Ask Questions:**

Please contact Zakiya O. Alsadah at +1-814-321-7679 or [zua3@psu.edu](mailto:zua3@psu.edu) with questions or concerns about this study.

**Voluntary Participation:**

Your decision to be in this research is voluntary. Your employer will not know whether or not you have chosen to participate in the study. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawal from this study will lead to no penalty or loss of benefits that you would otherwise receive.

You must be 18 years of age or older to take part in this research study.

Completion and return of the survey implies that you have read the information in this form and consent to take part in the research. Please print off this form for your records or future reference.

## Appendix C

### Distribution of Responses

Distribution of responses to Work Home Life sub scale items. (n = 207)

	1 Strongly disagree	2 Disagree	3 Moderately Disagree	4 Moderately agree	5 Agree	6 Strongly agree
Work/Home Life Subscale It	Row N %	Row N %	Row N %	Row N %	Row N %	Row N %
I have energy left after work	27%	14%	14%	26%	14%	4%
The organization's policy for vacations is appropriate for me and for my family	29%	18%	14%	16%	16%	6%
I'm able to balance work with family needs	16%	15%	14%	31%	18%	5%
It's Important to have support for taking care of elderly parents	3%	2%	3%	9%	29%	54%
It's Important to have on-site/near child care services	2%	3%	2%	8%	23%	61%
The system of shifts negatively affects my life	5%	8%	7%	17%	23%	40%

Distribution of responses to individual work engagement scale items. (n = 207)

		2 A few times a year or less	3 Once a month or less	4 A few times a month	5 Once a week	6 A few times a week	7 Everyday
Work Engagement Item	1 Never	Row N %	Row N %	Row N %	Row N %	Row N %	Row N %
Vigor At work I feel burst of energy	4%	7%	8%	17%	7%	37%	19%
Vigor At my job I feel strong and vigorous	4%	5%	5%	16%	9%	34%	26%
Vigor I'm enthusiastic about my job	4%	7%	6%	15%	14%	26%	27%
Dedication My job inspires me	7%	9%	6%	9%	13%	20%	36%
Dedication When I get up in the morning I feel like going to work	13%	6%	8%	12%	8%	26%	27%
Dedication I feel happy when I work intensely	13%	7%	6%	8%	11%	26%	29%
Absorption I'm proud of the work I do	3%	5%	3%	5%	5%	11%	68%
Absorption I'm immersed at my work	4%	5%	3%	7%	8%	23%	49%
Absorption I get carried away when I'm working	7%	4%	5%	6%	8%	26%	43%

Distribution of responses to Work Design sub scale items. (n = 207)

	1 Strongly disagree	2 Disagree	3 Moderately Disagree	4 Moderately agree	5 Agree	6 Strongly agree
Work Design Item	Row N %	Row N %	Row N %	Row N %	Row N %	Row N %
There are enough registered nurses in my work setting	33%	21%	10%	19%	14%	4%
I receive quality assistance from nursing assistants and service workers	12%	14%	17%	31%	19%	7%
I experience interruptions during daily work routine	6%	7%	14%	38%	23%	13%
I perform many non-nursing tasks	7%	12%	8%	19%	25%	29%
I receive sufficient assistance from nursing assistants and service workers	10%	14%	18%	26%	24%	7%
My workload is too heavy	8%	11%	10%	19%	29%	22%
I have autonomy to make client/patient care decisions	13%	12%	10%	29%	24%	13%
I'm able to provide quality client/patient care	3%	3%	3%	13%	41%	36%
I have enough time to do my jobs	8%	6%	9%	29%	34%	15%
I'm satisfied with my job as a nurse	5%	5%	5%	16%	27%	41%

Distribution of responses for Work Context subscale items. (n = 207)



	1 Strongly disagree	2 Disagree	3 Moderately Disagree	4 Moderatel y agree	5 Agree	6 Strongly agree
Work Context Subscale Item	Row N %	Row N %	Row N %	Row N %	Row N %	Row N %
I'm able to communicate well with my management and supervision	17%	12%	11%	21%	24%	16%
I'm recognized for my accomplishments by my nurse manager/supervisor	9%	10%	8%	21%	30%	22%
My nurse manager/supervisor provides adequate supervision	16%	10%	16%	21%	29%	9%
I'm able to participate in decisions made by nurse manager/supervisor	19%	10%	11%	24%	23%	13%
I feel upper-level management has respect for nursing	25%	11%	12%	25%	19%	8%
I receive enough feedback on my performance by nurse manager/supervisor	14%	12%	16%	23%	23%	12%
Nursing policies and procedures facilitate the work	16%	13%	14%	20%	22%	15%
I have good communication with nurse manager/supervisor	15%	10%	13%	20%	24%	17%
I feel like there is teamwork in my work setting	12%	8%	15%	30%	22%	13%
I communicate well with physicians in my work setting	2%	4%	10%	29%	34%	21%
I feel respected by physicians	4%	8%	10%	23%	36%	20%
I have good communication with other co-workers	3%	2%	1%	25%	35%	33%
I have friendships with co-workers	1%	3%	5%	18%	40%	33%
I receive support to attend continuing education/training programs	29%	14%	15%	18%	17%	6%
I get career advancement opportunities	27%	20%	13%	18%	16%	6%
It's important to have the opportunity to further nursing education	6%	5%	4%	10%	23%	53%
I feel the security department provides secure environment	14%	8%	13%	29%	25%	11%
I have adequate client/patient care supplies and equipment	9%	11%	15%	31%	23%	11%
I feel safe from personal harm at work	13%	14%	13%	26%	24%	11%
I feel like belong in the workplace	6%	8%	11%	21%	34%	21%
It's Important to have break area for nurses	2%	4%	2%	5%	20%	67%

Distribution of responses for Work World sub scale items. (n = 207)

	1 Strongly disagree	2 Disagree	3 Moderately Disagree	4 Moderately agree	5 Agree	6 Strongly agree
Work World Item	Row N %	Row N %	Row N %	Row N %	Row N %	Row N %
I believe that society has correct image of nurses	18%	19%	18%	22%	16%	6%
I would be able to find the same job in another organization with about the same salary and benefits	11%	12%	8%	21%	30%	18%
I feel my salary is adequate to my job given the current job market conditions	31%	15%	10%	23%	15%	5%
I feel my job is secure	16%	12%	13%	27%	24%	9%
Nursing work positively impacts the lives of others	3%	2%	9%	13%	32%	42%

Distribution of responses to Work Home Life sub scale items. (n = 207)

	1 Strongly disagree	2 Disagree	3 Moderately Disagree	4 Moderately agree	5 Agree	6 Strongly agree
Work/Home Life Subscale Item	Row N %	Row N %	Row N %	Row N %	Row N %	Row N %
I have energy left after work	27%	14%	14%	26%	14%	4%
The organization's policy for vacations is appropriate for me and for my family	29%	18%	14%	16%	16%	6%
I'm able to balance work with family needs	16%	15%	14%	31%	18%	5%
It's Important to have support for taking care of elderly parents	3%	2%	3%	9%	29%	54%
It's Important to have on-site/near child care services	2%	3%	2%	8%	23%	61%
The system of shifts negatively affects my life	5%	8%	7%	17%	23%	40%

Distribution of responses to individual work engagement scale items. (n = 207)

		2 A few times a year or less	3 Once a month or less	4 A few times a month	5 Once a week	6 A few times a week	7 Everyday
Work Engagement Item	1 Never Row N %	Row N %	Row N %	Row N %	Row N %	Row N %	Row N %
Vigor At work I feel burst of energy	4%	7%	8%	17%	7%	37%	19%
Vigor At my job I feel strong and vigorous	4%	5%	5%	16%	9%	34%	26%
Vigor I'm enthusiastic about my job	4%	7%	6%	15%	14%	26%	27%
Dedication My job inspires me	7%	9%	6%	9%	13%	20%	36%
Dedication When I get up in the morning I feel like going to work	13%	6%	8%	12%	8%	26%	27%
Dedication I feel happy when I work intensely	13%	7%	6%	8%	11%	26%	29%
Absorption I'm proud of the work I do	3%	5%	3%	5%	5%	11%	68%
Absorption I'm immersed at my work	4%	5%	3%	7%	8%	23%	49%
Absorption I get carried away when I'm working	7%	4%	5%	6%	8%	26%	43%

Distribution of responses to Work Design sub scale items. (n = 207)

	1 Strongly disagree	2 Disagree	3 Moderately Disagree	4 Moderately agree	5 Agree	6 Strongly agree
Work Design Item	Row N %	Row N %	Row N %	Row N %	Row N %	Row N %
There are enough registered nurses in my work setting	33%	21%	10%	19%	14%	4%
I receive quality assistance from nursing assistants and service workers	12%	14%	17%	31%	19%	7%
I experience interruptions during daily work routine	6%	7%	14%	38%	23%	13%
I perform many non-nursing tasks	7%	12%	8%	19%	25%	29%
I receive sufficient assistance from nursing assistants and service workers	10%	14%	18%	26%	24%	7%
My workload is too heavy	8%	11%	10%	19%	29%	22%
I have autonomy to make client/patient care decisions	13%	12%	10%	29%	24%	13%
I'm able to provide quality client/patient care	3%	3%	3%	13%	41%	36%
I have enough time to do my jobs	8%	6%	9%	29%	34%	15%
I'm satisfied with my job as a nurse	5%	5%	5%	16%	27%	41%

Distribution of responses for Work Context subscale items. (n = 207)

Work Context Subscale Item	1 Strongly disagree	2 Disagree	3 Moderate ly Disagree	4 Moderat ely agree	5 Agree	6 Strongly agree
	Row N %	Row N %	Row N %	Row N %	Row N %	Row N %
I'm able to communicate well with my management and supervision	17%	12%	11%	21%	24%	16%
I'm recognized for my accomplishments by my nurse manager/supervisor	9%	10%	8%	21%	30%	22%
My nurse manager/supervisor provides adequate supervision	16%	10%	16%	21%	29%	9%
I'm able to participate in decisions made by nurse manager/supervisor	19%	10%	11%	24%	23%	13%
I feel upper-level management has respect for nursing	25%	11%	12%	25%	19%	8%
I receive enough feedback on my performance by nurse manager/supervisor	14%	12%	16%	23%	23%	12%
Nursing policies and procedures facilitate the work	16%	13%	14%	20%	22%	15%
I have good communication with nurse manager/supervisor	15%	10%	13%	20%	24%	17%
I feel like there is teamwork in my work setting	12%	8%	15%	30%	22%	13%
I communicate well with physicians in my work setting	2%	4%	10%	29%	34%	21%
I feel respected by physicians	4%	8%	10%	23%	36%	20%
I have good communication with other co-workers	3%	2%	1%	25%	35%	33%
I have friendships with co-workers	1%	3%	5%	18%	40%	33%

(Continued)

Distribution of responses for Work Context subscale items. (n = 207)

I receive support to attend continuing education/training programs	29%	14%	15%	18%	17%	6%
I get career advancement opportunities	27%	20%	13%	18%	16%	6%
It's important to have the opportunity to further nursing education	6%	5%	4%	10%	23%	53%
I feel the security department provides secure environment	14%	8%	13%	29%	25%	11%
I have adequate client/patient care supplies and equipment	9%	11%	15%	31%	23%	11%
I feel safe from personal harm at work	13%	14%	13%	26%	24%	11%
I feel like belong in the workplace	6%	8%	11%	21%	34%	21%
It's Important to have break area for nurses	2%	4%	2%	5%	20%	67%

Distribution of responses for Work World sub scale items. (n = 207)

	1 Strongly disagree	2 Disagree	3 Moderately Disagree	4 Moderately agree	5 Agree	6 Strongly agree
	Row N %	Row N %	Row N %	Row N %	Row N %	Row N %
Work World Item						
I believe that society has correct image of nurses	18%	19%	18%	22%	16%	6%
I would be able to find the same job in another organization with about the same salary and benefits	11%	12%	8%	21%	30%	18%
I feel my salary is adequate to my job given the current job market conditions	31%	15%	10%	23%	15%	5%
I feel my job is secure	16%	12%	13%	27%	24%	9%
Nursing work positively impacts the lives of others	3%	2%	9%	13%	32%	42%

## Vita

ZAKIYA ALSADAH, Ph.D.

---

### Qualifications

---

*Growth-Centric Self-Starter Who Offers Human Resources, Team Building & Development Talents for Insightful Results*

---

### PROFESSIONAL SYNOPSIS

---

ASSOCIATION FOR TALENT DEVELOPMENT (ATD) CONFERENCE

2015 – 201

#### Volunteer – Global Village

Capitalized on the opportunity to lead forward-thinking multi-year support of this growth-focused conference tasked with assessing globally based participants' needs, including referring individuals to key available resources.

- ✓ Designed and developed the first-ever Arabic Women Networking event.
- ✓ Regularly liaised among cross-cultural individuals within a global landscape.
- ✓ Coordinated initiatives with a top team for the International Networking Night event.

AL-SAFA CHARITY ASSOCIATION, SAUDI ARABIA

2005 | 2009 | 2011 – 201

#### Human Resource Volunteer – Assessment Project (2011 – 2012)

Spearheaded preparation of a fundraising-centric project's proposal for charity management approval, including actively revising the proposal to meet management expectations. Expertly analyzed collected data using Survey Monkey on an Excel spreadsheet, and reported comprehensive outcomes by preparing detailed reports encompassing a summary of challenges, instruments, results, analysis, and suggested solutions.

#### Teacher (2009)

Planned and presented dynamic instruction by employing effective teaching methodologies to achieve improvements in multi-level English language studies for a 63-pupil classroom. Tactfully assessed students' strengths and weaknesses and recommended assignments based on skills. Supported training of new teachers.

---

### PROFESSIONAL INTERNSHIP

---

SERVICE EXCELLENCE INSTITUTE, STATE COLLEGE, PA

201

#### LinkedIn Developer | Administrator

Strategically steered development of a solutions-oriented LinkedIn group that supported the targeted marketing efforts of the Institute, including identifying workforce leadership via LinkedIn to bring thought leadership into the group. Communicated among identified professionals, posted subjects to group boards, and monitored boards.

---

### EDUCATION

---

THE PENNSYLVANIA STATE UNIVERSITY

201

#### Doctor of Philosophy in Workforce Education & Development

*Emphasis in Human Resources & Organizational Development*

Doctoral Dissertation: "The Relationship Between Quality of Nurses' Work-Life and Work Engagement in Hospitals in the Eastern Province of Saudi Arabia

THE PENNSYLVANIA STATE UNIVERSITY

201

#### Master of Science in Workforce Education & Development (4.0 GPA)

*Emphasis in Human Resources & Organizational Development*

Master's Thesis: "Cultural Diversity in the Workplace – Exploring the Challenges of Communication & Harmony"