WORK ENGAGEMENT AS MEDIATOR IN THE RELATIONSHIP
BETWEEN JOB RESOURCES AND EMPLOYEES’ TURNOVER
INTENTION AMONG NURSING PRACTITIONERS IN SAUDI ARABIA

A Dissertation in
Workforce Education and Development

by

Meshal Ibrahim Aljohani

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The dissertation of Meshal I. Aljohani was reviewed and approved* by the following:

Judith A. Kolb  
Associate Professor of Education  
Dissertation Co-Advisor  
Co-Chair of Committee

William J. Rothwell  
Professor of Workforce Education and Development  
Dissertation Co-Advisor  
Co-Chair of Committee

Mark D. Threeton  
Associate Professor of Workforce Education and Development Associate  
Director of Professional Personnel Development Center  
Professor In charge, Workforce Education and Development Program

Edgar P. Yoder  
Professor of Agricultural and Extension Education  
Department of Agricultural Economics, Sociology, and Education

Susan M. Land  
Associate Professor of Education  
Director of Graduate Studies for Learning and Performance Systems

*Signatures are on file in the Graduate School
ABSTRACT

The main goal of this quantitative study is to investigate the mediating influence of work engagement on the relationship between antecedents (e.g., supervisor support, performance feedback, autonomy, and learning opportunities) and consequence (turnover intention) among nursing practitioners in Royal Commission Medical Center (RCMC), Yanbu, Saudi Arabia. The study was conducted among a sample of 320 nurses from the RCMC, and data were analyzed by using the IBM Statistical Package for the Social Sciences Version 23 (SPSS-23). Specifically, Pearson correlation and simple mediation analysis with SPSS's PROCESS macro model 4 were employed to determine the influence of job resources on turnover intention through work engagement.

The results of the study indicated significant negative correlations between age and turnover intention ($r = -0.139; p \leq 0.013$), salary and turnover intention, and a positive correlation between nationality and dedication ($r = 0.128; p \leq 0.05$). Also, it was found that the three dimensions of work engagement were significantly correlated with job resources and turnover intention. The strongest relationships were found between absorption and learning opportunities ($r = 0.424; p < 0.001$), dedication and learning opportunities ($r = 0.417; p < 0.001$); dedication and turnover intention ($r = -0.313; p \leq 0.001$); learning opportunities and turnover intention ($r = -0.276$); and supervisory support and turnover intention ($r = -0.247$). Results of the mediation analysis confirmed an indirect effect of work engagement on the relationship between job resources and turnover intention ($\alpha = -0.04; SE, 0.01; 95\%CI: -0.07$ to $-0.01$). Work engagement did not have a full direct mediating effect on turnover intention, but the findings support a small partial mediation of work engagement.

Keywords: turnover intention, job resources, work engagement, JD-R model.
# TABLE OF CONTENTS

LIST OF FIGURES ........................................................................................................... ix

LIST OF TABLES ............................................................................................................ x

ACKNOWLEDGEMENT .................................................................................................... xi

Chapter 1 INTRODUCTION .......................................................................................... 1
  Background of the Study .............................................................................................. 2
  Significance of the Study .............................................................................................. 4
  Statement of the Problem .............................................................................................. 4
  Purpose of the Study ...................................................................................................... 6
  Research Questions ....................................................................................................... 9
  Definition of Terms ....................................................................................................... 10
  Conceptual Research Framework ................................................................................ 10

Chapter 2 REVIEW OF RELATED LITERATURE .......................................................... 14
  The Concept of Work Engagement .............................................................................. 16
  Roles of Work Engagement ......................................................................................... 17
    Engagement in the 1990s .......................................................................................... 18
    Engagement in the 2000s ......................................................................................... 20
  Employee Engagement in Academia .......................................................................... 23
  Factors Influencing Work Engagement ...................................................................... 24
  Job Demands-Resources Model ................................................................................. 26
  Theoretical Background ............................................................................................... 28
  Work Engagement Antecedents .................................................................................. 29
Instrumentation and Reliability........................................................................................................... 56

Turnover Intention.................................................................................................................................. 56

Job resources........................................................................................................................................ 56

Job autonomy and performance feedback instruments.............................................................................. 57

Learning opportunities........................................................................................................................... 58

Supervisory support.................................................................................................................................. 59

Work engagement...................................................................................................................................... 60

Data Collection....................................................................................................................................... 61

Developing the Survey............................................................................................................................ 61

Instrument Validity.................................................................................................................................. 62

Instrument Reliability............................................................................................................................. 63

Instrument Translation............................................................................................................................ 64

Approval of the PSU IRB.......................................................................................................................... 65

Approval from the RCMC........................................................................................................................ 65

Data Collection Method.......................................................................................................................... 66

Data Analysis Plan................................................................................................................................... 67

Chapter Summary.................................................................................................................................... 73

Chapter 4 RESULTS............................................................................................................................... 76

Research Questions................................................................................................................................. 77

Demographic Profiles of the Respondents.............................................................................................. 78

Reliability, Linearity, and Normality Testing............................................................................................ 81

Testing for reliability............................................................................................................................... 81

Testing for normality............................................................................................................................... 82
Homoscedasticity Testing .......................................................................................... 84
Bivariate Correlations .................................................................................................. 84
Demographic characteristics and turnover intention .................................................. 84
Demographic characteristics and work engagement .................................................. 85
Job resources and work engagement ......................................................................... 86
Job resources and turnover intention ....................................................................... 90
Work engagement and turnover intention .................................................................. 91
The Mediating Influence of Work Engagement .......................................................... 92
Mediation model linearity ......................................................................................... 93
Normality of estimation error .................................................................................... 94
Meditation analysis and results ................................................................................. 94
Chapter Summary ....................................................................................................... 98

Chapter 5 Summary, Discussion, Implications, and Recommendations .................. 100

Research Summary ................................................................................................... 100
Purpose of the Study ................................................................................................. 100
Research Questions .................................................................................................. 101
Research Procedures ............................................................................................... 101
Research Findings .................................................................................................... 103
Discussion ................................................................................................................ 109
Implications .............................................................................................................. 116
Implications for scholars ........................................................................................ 116
Implications for HRD practitioners .......................................................................... 118
Implications for HRD practitioners at the RCMC .................................................... 120
Recommendations .................................................................................................................. 122

Recommendations for future research ............................................................................... 122

Limitations ........................................................................................................................... 123

REFERENCES ...................................................................................................................... 125

Appendix A .......................................................................................................................... 147

IRB_PSU Approval Letter for Use of Human Research Subjects ........................................ 147

Appendix B ........................................................................................................................... 148

Approval RCMC TO Conduct Research ............................................................................. 148

Appendix C ........................................................................................................................... 149

Implied Informed Consent Form ....................................................................................... 149

Appendix D ........................................................................................................................... 152

Survey Questionnaires ....................................................................................................... 152

Appendix E ........................................................................................................................... 161

Recruitment Letter ............................................................................................................ 161

Appendix F ........................................................................................................................... 162

Approval to Use UWES-9 Survey Instruments ................................................................. 162

Approval to Use Job Characteristic Model (JCM) Survey Instruments ........................... 163

Appendix G ........................................................................................................................... 164

Descriptive Analysis of variables ..................................................................................... 164

Frequency Distribution for Autonomy, Performance feedback, and Turnover Intention
scale items (n = 320) ........................................................................................................... 164
LIST OF FIGURES

Figure 1-1. JD-R Model from Bakker and Demerouti (2007) ................................. 7

Figure 1-2. Conceptual Framework of the Study. .................................................. 13

Figure 4-1. Normal P.P Plot Regression Standardized Residual ............................. 83

Figure 4-2. Histogram of Residual Distribution ..................................................... 83

Figure 4-3. Normally Distributed Standardized Residuals ..................................... 93

Figure 4-4. Scatterplot of the relationship between work engagement as mediator variable and job resources and turnover intention ................................................. 94

Figure 4-5. Results of the mediating role of work engagement ............................... 97
LIST OF TABLES

Table 1-1 Total Number of Hospitals /Nurses in the KSA ........................................6
Table 3-1 Total Number of Hospitals /Nurses in the KSA. ........................................44
Table 3-2 General Information about Nursing Personnel at RCMC. .........................46
Table 3-3 Variable Name, Statement for each Variable, research question, and Name of Instrument .................................................................47
Table 3-4 Statistical Analysis Procedure Used in the Study.................................73
Table 4-1 Frequency Distribution for Study Demographic Variables (n = 320). ....79
Table 4-2 Basic descriptive statistics and Cronbach’s alpha for scale variables (n = 320)82
Table 4-3 Levene's Test of Equality of Error Variances ........................................84
Table 4-4 Bivariate Correlation between demographic characteristics and the three dimensions of work engagement (n = 320).................................85
Table 4-5 Descriptive statistics for turnover intention, the four dimensions of job resources, and the three dimensions of work engagement (n = 320)..............87
Table 4-6 Descriptive Statistics for Independent, mediator, and dependents variables (n = 320) .................................................................88
Table 4-7 Pearson Correlation Values between Work Engagement and Job Resources (n = 320) ...........................................................................90
Table 4-8 Pearson Correlation Values between Turnover Intention and Job Resources Dimension (n = 320) ..........................................................................91
Table 4-9 Bivariate Correlation for Work Engagement Dimensions and Turnover Intention (n = 320) .................................................................92
Table 4-10 The indirect effect of job resources on turnover intention through work engagement (n = 320) .........................................................................99
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Kahn (1990) described personal engagement as “the simultaneous employment and expression of a person’s ‘preferred self’ in task behaviors that promote connections to work and to others, personal presence, and active full role performances” (p. 700). Work engagement, a specific instance of personal engagement, is an emerging concept that has captured the interest of many scholars and practitioners in human resources development (HRD) and organization development (OD). Schaufeli and Bakker (2004) stated that work engagement refers to “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (p. 2).

Employees’ engagement in their work appears to benefit organizations. Saks (2006) maintained that work engagement could be a significant predictor of organizationally desirable outcomes. Bakker (2011) argued that engaged employees are more effective than other employees. Moreover, Stewart (2010) observed that work engagement is related positively to profits.

Sweetman and Luthans (2010) stated that a lack of employee engagement is an existential threat to contemporary organizations. Towers Perrin (2008) revealed that one out of every five employees in 31 countries is fully engaged in their work, while 4 out of 10 employees were disengaged. In the Towers Perrin study, companies with highly engaged employees experienced 28% growth in earnings per share (EPS), while companies with low engagement levels among employees experienced an 11.2% decline in EPS. Economy-wide, Athey (2008) estimated that the lack of engagement at work might have cost the United States $350 billion annually in the
early 2000s. Little wonder that, as Ketter (2008) noted, work engagement has become an organizational priority since early 2000.

Work engagement also could affect employee turnover. Abbasi and Hollman (2000) stated that turnover refers to the movement of employees from one organization to another or changing their status from employed to unemployed. Alexander, Bloom, and Nuchols (1994) observed that substantial costs are associated with employee turnover. For instance, McKinney, Bartlett, and Mulvaney (2007) estimated that turnover in Illinois parks and recreation agencies involved new employee hiring costs ranging from $2,647 to $23,142, depending on the particular positions that needed to be filled as a result of the turnover.

Background of the Study

The importance of work engagement has increased in recent years, due in part to consequences that might influence the organization’s outcomes, such as organizational effectiveness and individual job performance (Bakker & Demerouti, 2007). Unfortunately, high levels of disengaged employees can become a serious challenge for organizations (Sweetman & Luthans, 2010). Scholars have found that work engagement has negative or positive relationships with core business outcomes (e.g., profits, productivity, employee turnover intention, customer satisfaction, organizational commitment, job satisfaction, organizational effectiveness, extra-role performance, and in-role performance) (Bakker & Bal, 2010; Gabel Shemueli, Dolan, Suárez Ceretti & Nuñez del Prado, 2015; Harter, Schmidt & Hayes, 2002; Moussa, 2013; Schaufeli & Salanova, 2008). Therefore, it is essential to study and analyze the dimensions of work engagement and explore the impact of work engagement as a mediating variable between job resources and an organization’s outcomes.
When an organization adopts a philosophy of fostering work engagement, the likelihood of an employee searching for an alternative employment opportunity in another organization might be reduced. According to the job demands-resources (JD-R) model, when employees have access to adequate job resources in the workplace, both organizational outcomes and individual job performance are enhanced (Bakker & Demerouti, 2007). Thus, job resources can play an essential role in improving employees’ work engagement in the workplace. In the same vein, Schaufeli and Bakker (2004) showed a significant positive relationship between a resourceful job and work engagement, which, in turn, lowers the level of intention to quit. Turnover intention refers to the “conscious and deliberate willfulness to leave the organization” (Tett & Meyer, 1993, p. 262). Researchers have found a negative correlation between work engagement and employee turnover intention (Saks, 2006; Schaufeli & Bakker, 2004). Hakanen, Bakker, and Schaufeli (2006) stated that the most important predictors of work engagement are job resources. Job resources refer to “those psychological, social, or organizational aspects of the job that (a) are functional in achieving work-related goals, (b) reduce job demands and the associated physiological and psychological costs, and (c) stimulate personal growth and development” (Xanthopoulou, Bakker, Demerouti & Schaufeli, 2007, p.122). These aspects of the job might play a significant role in reducing the impact of job demands on employees, supporting employees in achieving work goals, and stimulating growth, earning, and development. Bakker et al. (2003) found that job resources (i.e., social support, supervisory coaching, performance feedback, and time control) are the most important predictors of turnover intentions. Schaufeli and Bakker (2004) found that job resources are more effective in enhancing engagement than job demands are in reducing engagement in the workplace. According to previous studies, when administrators attempt to reduce employee turnover in the workplace, they should consider a
work engagement approach, which is a fundamental, proactive approach. In other words, considering job resources as the antecedents of work engagement might help to reduce the turnover rate among employees.

**Significance of the Study**

Work engagement, as an emerging concept, has captured the interest of many scholars and practitioners in several fields such as human resources development (HRD) and organization development (OD). According to Callahan (2010), “to make connections between multiple bodies of literature and knowledge bases to make claims toward a particular argument is a significant part of the research” (p. 3). Hence, the most important benefit of conducting this study is to make a substantial contribution to an understanding of the mediating effects of work engagement on the relationship between “antecedent” job resources (i.e., supervisory support, performance feedback, autonomy, and learning opportunities) and “consequence” (employees’ turnover intention in the Saudi context). Additionally, the results of this study might help employers determine an appropriate balance between job resources and job demands in the workplace. Furthermore, the results might identify the most important job resources that could enhance employees’ work engagement.

**Statement of the Problem**

In Saudi Arabia, health organizations face many challenges due to the high rate of turnover among nurses (Al-Ahmadi, 2006; Al-Mutairi, 2017; Alboliteeh, 2015; Almalki, Fitzgerald & Clark, 2011; Walston, Al-Harbi & Al-Omar, 2007). In 2015, the Ministry of Health (2015) reported that 172,483 nurses in Saudi Arabia constituted 54.7% of the total healthcare workforce (see Table 1). However, the proportion of nurses who were Saudi nationals was only
about 32.3% of the total number of nurses and 4.1% of the nurses in the private health sector (Almalki et al., 2011). Walston et al. (2007) reported that the average tenure among non-Saudi physicians and nurses in Saudi Arabia is only 2.3 years. One reason for the low average tenure among expatriates might be that they prefer to migrate to Western countries after a few years due to better opportunities and training facilities (Almalki et al., 2011). Using more recent data, Alboliteeh (2015) concluded that approximately 43% of nurses in Saudi Arabia expressed an intention to leave the profession in the future. Almalki et al. (2011) asserted that the problem of turnover is not only rampant among expatriates but Saudi nurses as well.

If health organizations cannot solve the problem of the high turnover rate among nurses, there likely will be severe negative impacts for healthcare institutions. With a relatively low number of experienced nurses on the job, there could well be an increase in the incidence of medical errors and adverse patient events, along with an inferior quality of patient care overall (Labrague, Gloe, McEnroe-Pettite, Tsaras & Colet, 2018; North, Leung, Ashton, Rasmussen, Hughes & Finlayson, 2013). In addition to the negative impacts on healthcare services, the costs of high employee turnover are more significant than just filling a vacant spot. According to one analysis, the cost of replacing one experienced nurse ranges between $20,561 and $48,790 (Duffield, Roche, Homer, Buchan & Dimitrelis, 2014).

In light of the current state of instability in the nursing workforce in Saudi Arabia, efforts must be made to prevent turnover among nurses. Meeting this challenge requires that adequate research is done to understand the causes of turnover and what practices best predict high retention. Research that is specifically relevant to the social and cultural context of Saudi Arabia is particularly needed. Aboshaiqah, Hamadi, Salem, and Zakari (2016) stated one of the most significant factors affecting the turnover rate among medical staff is the level of work
engagement. Recently, many research studies have examined the mediating effects of work engagement on the relationship between job resources and employee turnover intention in Western countries, but few investigations of this topic have been conducted in Saudi Arabia (Abdulla, Djebarni & Mellahi, 2011). The results of Western research cannot be automatically generalized to apply to the Saudi Arabian context because of some fundamental cultural differences between Saudi Arabia and Western countries (Ali, 1996). In particular, the JD-R Model has been tested more thoroughly in Western nations than in Eastern countries (Burke, 2010; Idris, Dollard & Winefield, 2011). Therefore, an essential contribution to expanding the research on work engagement in Saudi Arabia and other Asian nations would be to test the assumptions of the JD-R model in these locales.

Table 1-1

*Total Number of Hospitals /Nurses in the KSA*

<table>
<thead>
<tr>
<th>Type of Hospital</th>
<th>Total Number of Hospitals</th>
<th>Total Number of Nurses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Health Hospitals</td>
<td>247</td>
<td>95,379</td>
</tr>
<tr>
<td>Other Governmental Hospitals</td>
<td>43</td>
<td>35,119</td>
</tr>
<tr>
<td>Private Hospitals</td>
<td>145</td>
<td>41,985</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>435</strong></td>
<td><strong>172,483</strong></td>
</tr>
</tbody>
</table>

**Purpose of the Study**

The primary intent of this quantitative study is to examine the relationship between job resources and employees’ turnover intention with work engagement mediating the relationship between them among nursing practitioners in the RCMC at Yanbu, Saudi Arabia. This study
aims to use the JD-R model (Bakker & Demerouti, 2007) as the theoretical framework for this study (see Figure 1). The JD-R model is a popular model of work engagement that can be applied to many types of positions for improving employee well-being and performance in a variety of work contexts (Bakker & Demerouti, 2007). Schaufeli and Bakker (2010) recommended the JD-R model as a restrictive model that considers work engagement to be a variable that mediates the relationship between job resources and positive outcomes. The assumption of the JD-R model is that the workplace environment is categorized into job demands and job resources (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Additionally, the JD-R model assumes that job resources can reduce employee stress that is caused by higher job demands in the workplace (Bakker & Demerouti, 2007; Demerouti et al., 2001).

The quantitative study assumes that enhancing employees’ work engagement through job resources could reduce employee turnover intention. Bakker and Demerouti (2008) found that job and personal resources could play an important role in improving the level of engagement in
the workplace. Additionally, this study assumes that job resources might increase employees’ work engagement. Job resources will be categorized as: (a) supervisory support; (b) performance feedback; (c) autonomy; and (d) learning opportunities. Additionally, Hobfoll (2001) developed the conservation of resources (COR) theory that supports the positive role of job resources on employee engagement. The COR theory outlines the importance of job resources for employees in the following ways: (a) job resources can help employees to deal with stress in the workplace, and (b) providing job resources can lead employees to invest what they gained from resources to protect against future resource losses.

Additionally, this study will develop a profile of the participants—nursing practitioners in KSA—by identifying their demographic characteristics (e.g., age, gender, education level, position title, experience, etc.). An examination of demographic characteristics will be necessary for the study because it is helpful to identify features and factors contributing to significant differences in work engagement.

The second part of the study will ask participants to identify the impact of the job resources on their level of work engagement. Use of the Utrecht Work Engagement Scale-UWES-9 could help to measure work engagement of medical practitioners in the KSA and find the mediating role of work engagement between job resources and turnover intentions.

The researcher will illuminate the effect of work engagement in mitigating business problems from employee turnover and offer practical applications of the results to the business world. The improvement of the level of work engagement in the workplace could lead to the reduction of employee turnover rate.
Research Questions

To explore the mediating effects of work engagement on the relationship between “antecedent” job resources (performance feedback, supervisory support, job autonomy, and learning opportunities) and the “consequence” of employees’ turnover intention in the Saudi context, the following questions will be answered:

RQ1. To what extent do the demographic characteristics of nurses (i.e., gender, age, level of education, marital status, years of work experience, job category, nationality, and salary) influence turnover intention and three work engagement dimensions (vigor, dedication, and absorption)?

RQ2. To what extent do the four job resource dimensions (performance feedback, supervisory support, job autonomy, and learning opportunities) influence the work engagement dimensions (vigor, dedication, and absorption) and turnover intention among nurses working in the health services program at the RCMC in Yanbu, KSA?

RQ3. To what extent do the dimensions of work engagement influence employee turnover intention among nurses working in the health services program at the RCMC in Yanbu, KSA?

RQ4. To what extent does work engagement mediate the relationship between the various job resources and employees’ turnover intention among nurses working in the health services program at the RCMC in Yanbu, KSA?
Definition of Terms

**Work engagement**: "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli & Bakker, 2004, p. 2).

**Turnover intention**: “the conscious and deliberate willfulness to leave the organization” (Tett & Meyer, 1993, p. 262).

**Job resources**: “those psychological, social, or organizational aspects of the job that (a) are functional in achieving work-related goals, (b) reduce job demands and the associated physiological and psychological costs, and (c) stimulate personal growth and development” (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007, p.122).

**Job autonomy**: “the degree to which a job requires a variety of different activities in carrying out the work, which involves the use of a number of different skills and talents of the person” (Hackman & Oldham, 1976, p. 257).

**Performance feedback**: “the degree to which carrying out the work activities required by the job results in the individual obtaining direct and clear information about the effectiveness of his or her performance” (Hackman & Oldham, 1976, p. 258).

**Supervisory support**: “the degrees to which employees perceive [that] their supervisors offer employees support, encouragement and concern” (Babin & Boles, 1996, p. 60).

Conceptual Research Framework

The JD-R model (Figure 1) is a popular model of work engagement that can be applied to many types of positions for improving employee well-being and performance (Bakker & Demerouti, 2007). If employers want to achieve an accurate balance between the job demands...
and job resources facing employees in the workplace every day, the JD-R model can help with this effort.

The JD-R model aims to find out how job resources can reduce employee stress that is caused by higher job demands (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner & Schaufeli, 2001). JD-R model has been used as the theoretical framework for many studies, and scholars prefer this model to others models, such as the demand-control model and the effort-reward imbalance model (Bakker & Leiter, 2010). For instance, the demand-control model (DCM), developed by Karasek (1979), assumes that job strain can occur if employees face high job demands while they have low job control. The major disadvantage of using the DCM model is that this model merely uses work overload and time pressure as job demands and job control as the only job resource. Hence, the selected job resource and job demands of the DCM model cannot be generalized to all occupations because the content and nature of each position are different. Additionally, the selected job resources might not help reduce the impact of job demands because each job has its own type of job resources and demands (Bakker & Demerouti, 2007; Bakker & Leiter, 2010). The limited set of job resources is a significant disadvantage of using the DCM model (Bakker & Demerouti, 2007).

In contrast, many scholars support the use of the JD–R model as a framework for the study of engagement for several reasons. First, the JD–R model can help one to understand the psychological mechanisms of work engagement. Moreover, the JD-R model can be implemented for a variety of work contexts (Demerouti et al., 2001). Van Veldhoven, De Jonge, Bosma, and Schaufeli (2005) conducted a study of 37,291 Dutch employees to determine which model was superior for tracking work engagement. Specifically, they compared the JD-R model and the
DCM. They found that the JD-R model is better than the DCM in terms of providing the best explanation for the relationship between job characteristics and employee well-being.

Additionally, Bakker and Demerouti (2007) found that the JD-R model covers the main goals of using either the DCM or the effort-reward imbalance model. The JD-R model is more flexible and rigorous than both. Additionally, Schaufeli and Bakker (2010) recommended the JD-R model as the more restrictive model that considers work engagement as a variable that mediates the relationship between job resources and positive outcomes. An assumption of the JD-R model is that the workplace environment is categorized into job demands and job resources (Bakker, Demerouti, De Boer & Schaufeli, 2003; Bakker, Demerouti & Euwema, 2005; Demerouti et al., 2001; Llorens, Bakker, Schaufeli & Salanova, 2006; Schaufeli & Bakker, 2004). Moreover, Bakker and Demerouti (2008) found that job and personal resources could play an essential role in improving the level of engagement in the workplace, and such resources decrease the impact of job demands on employees because, as seen in Figure 1-1, there is an interaction between job resources and job demands. Bakker and Demerouti (2007) noted that job demands might be buffered from job strain if employees have enough job resources.

Furthermore, Bakker and Leiter (2010) explained that the JD-R model consists of two paths for working conditions. The first is when employees face high job demands in the workplace. In this situation, job demands might exhaust mental and physical resources, leading to burnout. The JD-R model proposes a second set of work conditions, called the motivational process, through which job resources enhance and foster work engagement in the workplace; job resources are very significant in this set of work conditions because they may be an intrinsic or extrinsic tool for enhancing employees’ motivation (Bakker & Leiter, 2010; Hakanen, Bakker & Schaufeli, 2006). Moreover, the JD-R model proposes that the amount of intrinsic or extrinsic
resources in the workplace might affect employees’ level of engagement (Bakker & Leiter, 2010; Schaufeli, 2013).

This paper intends to use the JD-R model as a theoretical framework to investigate the mediating effects of work engagement on the relationship between job resources (supervisory support, performance feedback, autonomy, and learning opportunities) and employees’ turnover intention (Figure 1-2). Using the JD-R model can be an advantage for the study because researchers could substitute other types of job resources that can buffer the undesirable influence of job demands on employees and increase work engagement in the workplace (Bakker, Hakanen, Demerouti & Xanthopoulou, 2007).

![Figure 1-2. Conceptual Framework of the Study.](image-url)
Chapter 2

REVIEW OF RELATED LITERATURE

The conceptual framework of this study depends on the theoretical and empirical literature on the mediating effects of work engagement, the relationships among its antecedents, and the import it has in academic and practical applications. Consequently, the purpose of this chapter is to review literature that collectively addresses the factors that measure work engagement and their effects on employee turnover intention. This comprehensive review will help to establish the structural relationships among the variables that determine the level of employees’ work engagement at the Royal Commission Medical Center (RCMC).

The literature review was conducted using a deductive reasoning method to reach a logical conclusion about the relationship between job resources and employees’ turnover intention with work engagement mediating the relationship between them. Creswell and Plano Clark (2007) explain the deductive research method as one proceeding from general ideas to more specific ideas. Thus, the framework of this descriptive research review is to use literature deductively to answer the research questions and explore the relationships among the variables. According to Creswell (2014), there are four purposes of a literature review: (a) integrate what others have done and said; (b) criticize previous studies; (c) make connections with related topics; and (d) identify research gaps. Additionally, according to Callahan (2010), an excellent integrative literature review should be built on a clearly outlined methodology that answers the following questions: (a) where the literature was found?; (b) when was the research was conducted?; (c) who did the study?; (e) how many articles about the topic?; and (f) what are the selection criteria?
Several steps were followed to locate scholarly sources efficiently. First, the researcher accessed the Pennsylvania State University Library on September 14, 2016, and then obtained ProQuest (mutable databases) as starting points for the literature search. Next, the researcher used “work engagement” or "employee engagement" or "job engagement" as search terms in abstracts to locate related articles. Then, the researcher used “job resources” and “turnover intention” in combination with the previous keywords. The researcher narrowed the search by choosing different filters such as “scholarly journals,” “English language,” and “related subject” only. The final results listed 97 scholarly journals that could contribute most to this literature review. The next step was to download these articles in an Excel spreadsheet. Torraco (2005) suggests three steps that could help to justify the selection of scholarly journals: (a) an initial review of abstracts; (b) an analysis of methods and findings only; and (c) reading each of the publications. Following these suggestions, the researcher reviewed the abstracts from 97 academic journals and selected those best fitting the subject of the study. Ultimately, the researcher chose the scholarly journals most appropriate for further review. Additionally, the researcher used Google Scholar to find other studies of interest that were cited in the selected scholarly journals.

The purpose of this chapter is to review the publications that collectively address the role of job resources on work engagement and its effects on employee turnover intention. The review will help establish what the necessary variables are that need to be included and explored in the present study. This literature review is organized into four sections. First, the concept of work engagement is clarified by distinguishing it from related concepts, such as job involvement and organizational commitment. Second is a review of the evolution of the concept of employee engagement, along with a discussion of the concept of employee engagement in academia. Third
is a review of the role of job resources as antecedents of work engagement in an organization. Fourth is a discussion of employee turnover intention as a consequence of work engagement.

**The Concept of Work Engagement**

During the past several decades, job satisfaction has been a concern for many organizations, and it was measured for the first time in the 1930s (Saari & Judge, 2004). Job satisfaction refers to “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (Locke, 1975, p. 1304). The term “job satisfaction” refers to a worker’s general feelings and attitudes regarding his/her employment. Fernandez (2007) insisted that employee satisfaction is different from employee engagement. Additionally, Bakker and Leiter (2010) argue that job satisfaction is concerned with the effect of work on employees while engagement is concerned with employees’ attitude at work. Therefore, a satisfied employee is not necessarily an engaged employee.

Additionally, engagement can be differentiated from organizational commitment. Organizational commitment refers to “the relative strength of an individual's identification with, and involvement in, a particular organization” (Mowday, Steers & Porter, 1979, p. 226). Leiter and Maslach (1997) explained that commitment could be predicted through engagement. Macey and Schneider (2008) argued that commitment could be an aspect of engagement, however, it is not sufficient for engagement. Saks (2006) described the distinction between work engagement and organizational commitment by clarifying that organizational commitment is about employees’ attitudes toward the organization, while work engagement is about the level of involvement in the work role. Three features describe work commitment: (a) a strong desire on the part of the employee to remain part of the organization; (b) an employee’s belief in the
company’s values, mission and vision; and (c) the readiness of workers to exert great efforts to achieve the organization’s goals and objectives (Armstrong, 2009).

According to Saks (2006), work engagement is different from job involvement because it concentrates on how workers attend to the duties assigned to them in the organization. Furthermore, work engagement involves the use of measures for cognition, leadership support, and employee emotions. Work engagement can be an antecedent to job involvement in the sense that workers who are highly engaged in their work become more involved in their jobs. Therefore, work engagement can make an excellent connection between employees and organizations, as well as ensure that employees are working harder to achieve the desired outcomes for the organization.

**Roles of Work Engagement**

During the 1970s and 1980s, human resources (HR) practitioners focused on job satisfaction and organizational commitment in order to improve employee performance. Starting in the early 1990s, practitioners began to shift their attention to work engagement. The Merriam-Webster dictionary (n.d.) defines engagement as “emotional involvement or commitment.” Work engagement occurs when an employee has an active and fulfilled mind that exhibits their energy and dedication in achieving the goals and objectives of the organization. The use of the term work engagement has been changing since the 1990s. Initially, work engagement was based on workers' satisfaction with their duties, in contrast to current usage whereby workers’ output defines their engagement.

Work engagement has gained attention over the past twenty years because it is positively related to several outcomes (namely, employee performance, retention, productivity, and satisfaction). Even though work engagement has gained attention over the last twenty years, it
remains inconsistently defined and conceptualized (Schaufeli, 2013; Schaufeli & Bakker, 2010; Shuck & Wollard, 2010). With no universal or fixed conceptualization of work engagement, researchers have operationalized and measured the concept in many different ways (Macey & Schneider, 2008). This section will review the conceptualization of work engagement in the 1990s, 2000s, and 2010s in both business and academic settings.

**Engagement in the 1990s**

Several scholars conceptualized work engagement as a personal engagement or as the opposite of employee burnout. Research on engagement in the 1990s highlighted the importance of employees’ psychological states on work engagement. One of the first studies that explored work engagement conceptualized an employee’s involvement or commitment as personal engagement. In 1990, Kahn investigated how personal engagement affected how workers engaged in their responsibilities. He defined personal engagement as “the simultaneous employment and expression of a person’s ‘preferred self’ in task behaviors that promote connections to work and others, personal presence, and active full role performances” (p. 700).

The researcher focused on how employees’ emotions, minds, and physical characteristics affected their work engagement. In other words, the study outlined the importance of having physical, emotional, and psychological resources as the first stage of personal engagement. He posited that meaningfulness, safety, and availability are important resources to determine whether employees are engaged or disengaged in their work. Kahn (1990, p. 705) defined meaningfulness as the “sense of return on investments of self in role performance,” defined safety as “the ability to show and employ self without fear or negative consequences to self-image, status, or career,” and defined availability as the “sense of possessing the physical, emotional, and psychological resources necessary.” Kahn (1990) conducted a study among 16
counselors (seven women and nine men) working in a summer camp. The respondents were between 20 to 35 years of age. The researchers used qualitative methods, such as document analysis, observation, and in-depth interviews, to collect data. The participants were asked questions about their work station and how they responded to certain situations. The researcher then coded their behavior as either personal engagement or disengagement. The results indicated that personal engagement affected how the workers engaged in their responsibilities (Kahn, 1990). For example, the researcher found that one of the counselors, who worked in architecture as a senior designer, worked physically by moving around the office, cognitively by designing the construction interfaces, and emotionally by assuming the criticism of other workers.

Kahn (1990) concluded that employees were more engaged in their duties when they interacted freely with other staff. Besides, the researcher introduced potential mediating factors of work engagement, like insecurity, that reportedly affected the workers emotionally and mentally, and, therefore, reduced their level of work engagement.

Kahn’s (1990) seminal study is limited to a small sample of 16 employees in discussing a range of variables, but it was the earliest established framework for understanding work engagement. The study also gained the attention of researchers who later explored work engagement in various ways. For example, based on Kahn’s 1990 study, May, Gilson, and Harter (2004) conducted a study among 203 employees in an insurance firm. The primary goal of the study was to explore the mediating effects of three psychological conditions (meaningfulness, safety, and availability) on work engagement. The result of the study indicated that engagement was positively and statistically significantly related to meaningfulness ($r = 0.63$), availability ($r = 0.29$), and safety ($r = 0.45$).
Rich, Lepine, and Crawford (2010) also re-examined Kahn’s (1990) original domains of engagement. They conducted a study on job engagement among 245 firefighters and their supervisors in four municipalities. The primary goal of the study was to provide empirical evidence that job engagement mediates relationships between the independent latent variables (value congruence, perceived organizational support, and core self-evaluation) and the dependent variables (task performance and organizational citizenship behavior). The researchers found that work engagement mediates the relationship between perceived organizational support and task performance.

Engagement in the 2000s

Engagement in the workplace began to be conceptualized by several scholars as “job engagement” (Maslach, Schaufeli & Leiter, 2001), “employee engagement” (Harter, Schmidt & Hayes, 2002), “work engagement” (Schaufeli, Salanova, González-Romá & Bakker, 2002), and “psychological state engagement” (Macey & Schneider, 2008). The following section will review each of these conceptualizations and the measurement tools used for their operationalization.

Similar to their earlier study (Maslach & Leiter, 1997), Maslach et al. (2001) conceptualized engagement as “the positive antithesis of burnout,” but in this study used the term “job engagement” rather than other terms like “personal engagement” (p. 416). In 2001, the researchers also focused on prolonged interpersonal and psychological job stressors with an emphasis on three dimensions of burnout (exhaustion, cynicism, and inefficacy) and the job characteristics (workload, control, rewards and recognition, community and social support, perceived fairness, and values) that can have a significant impact on job engagement. Maslach et al. (2001) found that engagement can be the positive antithesis of burnout. They used a burnout
inventory to investigate the relationship between job characteristics and burnout. Specifically, they found workload and control conditions could play important roles in enhancing engagement, and they argued that a lack of feedback and autonomy reduces the level of engagement.

Additionally, they found that heavy workload resulted in exhaustion among employees, leading to lower performance. Exhaustion was also the most reported dimension because of its adverse impacts on job engagement. Exhaustion implied the stress dimension of burnout. In this study, exhaustion prompted depersonalization whereby the workers distanced themselves from their work and their clients emotionally and cognitively. Moreover, the study also found that workers developed a cynical attitude when they felt that they were discouraged and exhausted, which led to reduced personal achievements (Maslach et al., 2001). The researchers concluded that burnout leads to a higher employee turnover rate resulting in lower job productivity, as well as reduced job commitment and satisfaction among employees.

Harter et al. (2002) selected a sample of 198,514 participants from 7,939 business company units across 36 companies to determine the correlation between employee engagement and outcomes of the business units. The researchers used the Gallup workplace audit (GWA) instrument (Gallup Q12 Employee Engagement Questionnaire; Gallup Organization, 1992–1999) to examine employee perceptions regarding work satisfaction, supervisory practices, work motivation, and teamwork effectiveness. Dependent variable measures included customer satisfaction, loyalty, profitability, productivity, turnover, safety, and composite performance.

The results of Harter and colleagues’ 2002 study found that the business units recorded a positive correlation of \( r = 0.77 \) between personal satisfaction and employee engagement. The study also found that there were no meaningful correlations between composite performance and
employee engagement. Additionally, the study also found that there were no meaningful correlations between performance and employee engagement. They suggested that any changes in management practices that lead to increased employee satisfaction might help to improve the organizations' profit.

Schaufeli et al. (2002) examined whether vigor, dedication, and absorption can determine work engagement in an organization. The researchers hypothesized that work engagement consists of “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli et al., 2002, p. 74). Vigor refers to “individuals’ feelings that they possess physical strength, emotional energy, and cognitive liveliness—a set of interrelated affective states experienced at work” (Bakker & Leiter, 2010, p. 69). Dedication refers to individuals who are more involved in their work and have a high level of motivation, enthusiasm, and desire for challenge. Absorption is characterized by being fully focused on the quality of one’s performance and not wanting to detach oneself from work (Schaufeli & Salanova, 2008).

Schaufeli et al. (2002) selected a sample of 314 students and 619 employees from 12 private and public companies in Spain. The researchers used the Maslach Burnout Survey (MBS) to collect and measure data from respondents. An engagement questionnaire was also developed and adopted in the research. The findings confirmed that cynicism, exhaustion, and professional efficacy correlated with vigor, dedication, and absorption in influencing employee engagement. The study also reported 22% and 38% variation in the dedication of the students and staff respectively. The study concluded that a lack of vigor and commitment made employees unable to get absorbed by their duties and, thus, had lower levels of engagement. The strength of this study is in the comparative analysis of the students from the university and workers in public and
private institutions. The study focused less on discussing the impacts of the variables than on the general relationship between burnout and work engagement.

Additionally, Macey and Schneider (2008) conducted a study to provide a summary and clarification of engagement. After they reviewed several definitions of engagement, they proposed that work engagement was used to refer to psychological states, traits, and behaviors. Thus, they conceptualized work engagement as based on three dimensions of engagement: psychological states engagement, traits engagement, and behavioral engagement. Trait engagement describes employees’ dispositions; state engagement describes employees’ feelings, and behavioral engagement describes employees’ performance. The researchers reported that behavioral engagement is a consequence of a psychological state, and the antecedent was trait engagement.

**Employee Engagement in Academia**

Saks (2006) conducted the first academic research study on the antecedents and consequences of job and organizational engagement. Employee engagement in the study was defined as “a distinct and unique construct that consists of cognitive, emotional, and behavioral components that are associated with individual role performance” (p. 602). A sample of 102 workers in different organizations in Toronto, Canada, with an average working experience of five to ten years participated in the study. The respondents ranged from 30 to 60 years old. A survey was used to collect data on their organizational engagement and its consequences. The results indicated that there was a difference in work participation among employees because of factors like institutional support and employee interests. The researchers concluded that the characteristics of a job, like the amount of salary, office space and level of command, can affect employee engagement. Workers were less engaged when the organization was not meeting their
needs in the workplace. The study elaborated that employee needs can determine their degree of work engagement.

**Factors Influencing Work Engagement**

Since 2010, researchers have conducted studies to investigate the main factors that can influence work engagement, such as employees’ cognitive, emotional, and behavioral states (Shuck & Wollard, 2010); human resource development practices (Rurkkhum & Bartlett, 2012); burnouts (Hakanen & Schaufeli, 2012); positive emotions (Ouweneel, Le Blanc & Schaufeli, 2013); leader support (Hewitt, 2015); and ethical standards (Mauno, Ruokolainen, Kinnunen & De Bloom, 2016). The following sections explain the research on each of these factors that are potential influences on work engagement.

Shuck and Wollard (2010) conducted a study by reviewing 159 scholarly articles to find an accurate definition of employee engagement. They defined it as "an individual employee's cognitive, emotional, and behavioral state directed toward desired organizational outcomes" (Shuck & Wollard, 2010, p. 103). The study analyzed 144 studies after removing 15 studies because they were unrelated to the topic. The findings indicated that employee sabotage, employee burnout, and high turnover were barriers that hindered employee work engagement. The study also found that many people who go to work are disengaged from their duties and responsibilities. The researchers suggested that employees need to have an active mind to achieve a high degree of work engagement. The study also concluded that HR managers need to develop policies, strategies and provide resources that motivate workers in performing their duties.
A study by Rurkkhum and Bartlett (2012) also investigated the relationship of human resource practices with employees’ work engagement. In this study, the researchers explored the correlation between organizational citizenship behavior and employee engagement in Thailand. A sample of 522 employees in four large regions of Thailand participated in the study. The researchers found a positive correlation between the workers’ organizational citizenship behavior and their level of work engagement. The study concluded that perceptions of human resource development played a significant role in an employee’s decision whether or not to actively engage in the organization. Workers were more engaged when they realized that they had an opportunity to increase their development within the organization through training and promotion.

A study by Hakanen and Schaufeli (2012) focused on work-related indicators of employee well-being that included work engagement and burnout. The study also explored whether work engagement or burnout can result in employee depression or lack of job satisfaction. Three surveys were used to collect data from respondents. A sample of 3,255 dentists was selected for the study in the first survey (T1). The second, follow-up survey (T2) was carried out three years later with 2,555 (84%) of the initial dentists. The last follow-up survey (T3) was carried out four years later with 1,964 participants from the second survey sample. The findings of the study indicated that experiencing burnout could lead to depression and job dissatisfaction among employees initially (T1 survey results) and over time (T3 survey results). Additionally, work engagement prevented negative symptoms of depression and predicted positive impacts on job satisfaction from T1 to T2, and from T2 to T3.

Another study was conducted in 2013 to investigate how positive psychological intervention influences work engagement. A study by Ouweneel, Le Blanc, and Schaufeli (2013)
examined how positive emotions among workers and worker self-efficacy can impact work engagement. The study adopted an online survey method to collect data on happiness assignments, resource-building tasks, and goal-setting tasks from workers at different firms. The findings of the study showed that those workers who motivated themselves had a higher degree of positive emotions and, therefore, were more engaged in their work.

A study by Salanova, Agut, and Peiró (2005) investigated the mediating role of the service climate in determining employee loyalty and performance, while work engagement and organizational resources were the independent variables. They used the structural equation model (SEM) to analyze the relationships between the variables. A sample of 342 employees from 114 product and service units, comprised of 58 hotel front desks and 56 restaurants, participated in the study. Additionally, the researchers interviewed 1,140 clients who visited these hotels and restaurants. The clients were questioned about the employees’ performance and customer loyalty. The results of the research showed that organizational resources and engagement determined employee performance and customer loyalty.

**Job Demands-Resources Model**

The job demands-resources (JD-R) model is used to predict employee engagement, burnout, and organizational performance. Demerouti and her colleagues developed the JD-R model. The JD-R assumes that the workplace environment can be conceptualized as sets of job demands and job resources. The resources can determine the level of work engagement among employees (Demerouti et al., 2001). Additionally, Bakker and Demerouti (2007) noted that job resources might buffer job strain if employees have enough job resources. The JD-R model aims to determine how job resources can reduce the stresses on employees that are caused by high job demands (Demerouti, et al., 2001). The JD-R model is a popular model of work engagement, and
it can be applied to a variety of work environments in terms of improving employee well-being and performance (Bakker & Demerouti, 2007).

Additionally, the JD-R model has been used as the theoretical framework for many studies, and scholars prefer to use this model rather than other models (e.g., DCM). In the DCM developed by Karasek (1979), an assumption is that job strain can occur if employees face high job demands while employees have low job control. The major disadvantage of using the DCM model is that this model just uses work overload and time pressure as job demands, and uses job control as the only job resource. The selected job resource and job demands of the DCM cannot be generalized to all occupations because the content and nature of every job are different. Additionally, selected job resources might not help to reduce the impact of job demands because each job has its own types of job resources and demands (Bakker & Demerouti, 2007; Bakker & Leiter, 2010).

Van Veldhoven, De Jonge, Bosma, and Schaufeli (2005) conducted a study among 37,291 Dutch employees to determine which model can be better used to predict work engagement. Specifically, they compared the JD-R model and the DCM. They found that the JD-R model is better than the DCM in terms of providing the best explanation for the relationship between job characteristics and employees’ well-being. Schaufeli and Bakker (2010) also recommended the JD-R model over other models as the former is a more restrictive model that considers work engagement as a mediator variable in the relationship between job resources and positive outcomes.

Another interesting study by Hakanen, Bakker, and Schaufeli (2006) examined the JD-R model with a sample of 2,038 teachers. The researchers used the SEM to measure the energetic and motivational processes among employees. The results indicated that energetic and
motivational processes affected teacher well-being. The job resources of the JD-R model, such as social support, supervisory coaching, performance feedback, and time control, were the primary predictors of higher turnover intentions among the teachers in different organizations.

**Theoretical Background**

Several theories support the assumptions of the JD-R model, such as self-determination theory (SDT) and conservation of resources theory (COR). SDT focuses on the inherent psychological needs that people advocate for in an organization without external interference (Gagné & Deci, 2005). COR theory attempts to explain the role of job resources in work engagement; it is a comprehensive model that addresses different concepts of stress. COR theory states that people focus on obtaining and maintaining resources, cultivating desired personal characteristics, and financial security. A person becomes stressed when their resources are depleted or limited (Hobfoll, 1989). Hakanen, Bakker, and Demerouti (2005) conducted a study among dentists. They found that job resources might be the most important predictor of work engagement, specifically when employees face high job demands in the workplace.

Additionally, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009a) employed COR theory in their longitudinal study of the relationship between personal resources, job resources, and work engagement. A sample of 163 employees participated in an 18-month-long study. The findings supported COR theory in that the availability of work resources can motivate employees to engage more with their work. The study concluded that there was a positive correlation between personal resources and work engagement.

The conceptual framework of the present study is based on the assumptions of the JD-R model, SDT, and COR theory to investigate the mediating effects of work engagement on the
relationship between job resources (supervisory support, performance feedback, autonomy, and learning opportunities) and employees’ turnover intention.

**Work Engagement Antecedents**

Job resources (e.g., social support, supervisory coaching, performance feedback, and time control) are the most important predictors of turnover intentions, with work engagement serving as a mediating variable (Bakker et al., 2003; Schaufeli & Bakker, 2004). Job resources refer to “the physical, psychological, social, or organizational aspects of the job that: (a) are functional in achieving work-related goals; (b) reduce job demands and the associated physiological and psychological costs; and (c) stimulate personal growth and development” (Xanthopoulou, Bakker, Demerouti & Schaufeli, 2007, p.122). Moreover, job resources can be found at the macro level, the organizational level, the interpersonal level, the specific job level, and at the task level (Demerouti & Bakker, 2011).

Job resources play an essential role in terms of enhancing work engagement. Kahn (1990) regards job resources as one of the three main drivers of workers’ engagement. He stated that job resources could help to make employees more engaged in their work when job resources are available and accessible to employees. Additionally, job resources can improve the levels of employees’ intrinsic and extrinsic motivations (Bakker & Demerouti, 2007). Schaufeli, Bakker, and Van Rhenen (2009) conducted a longitudinal study of 201 telecom managers. They found that when employers provide enough resources for their employees, the work engagement level in the organization increased.

Moreover, a study by Bakker, Hakanen, Demerouti, and Xanthopoulou (2007) examined the relationship between job resources and work engagement. A sample of 805 teachers from secondary and vocational schools in Finland was selected by the researchers to explore whether
job resources promote work engagement when job demands are high. The findings indicated that leadership support, appreciation of good performance, and innovativeness were significant job resources for teachers because they countered the negative effects of students’ actions.

Similarly, Jamal (2018) conducted a comparative international study among 677 physicians and nurses in the Sultanate of Oman and the United Arab Emirates to examine the relationships among job demands, job satisfaction, and work engagement. He found that the most substantial positive relationship for work engagement was with job satisfaction ($r = 0.562$). Concerning the role of job resources in work engagement, he examined three job resource factors: autonomy, supervisory coaching, and performance feedback, and he found a moderate positive association between work engagement and job resources ($r = 0.425$) when he combined the job resources score. Taking the results of all these studies together, the author can hypothesize that job resources can play an essential role in enhancing the level of work engagement among employees. Thus, the following section will explain the influence of four job resources as antecedents of work engagement: (a) supervisory support, (b) performance feedback, (c) job autonomy, and (d) learning opportunities.

**Supervisory support.**

Perceived supervisor support (PSS) refers to the common view of employees regarding the extent to which supervisors value their employees’ contributions and care about their well-being in the workplace (Kottke & Sharfinski, 1988). Supervisory support can be defined as “the degree to which supervisors can be relied upon by subordinates to both help and resolve issues, especially during times of difficulty” (Wang, Cheng & Jane, 2013, p. 566). Supervisory support has also been defined as “the degree to which employees perceive that their supervisors offer employees support, encouragement and concern” (Babin & Boles, 1996, p. 60).
Janetta (2006) conducted a study among 527 healthcare employees to identify the job competencies associated with sufficient performance and staff retention of first-line nurse managers, and to test the psychometric properties of the Nurse Manager Competency Inventory (NMCI). Janetta used a self-assessment tool for measuring the job competencies linked to performance and staff retention among first-line nurse managers employed in a hospital setting. She found that “perform supervisory responsibilities” (M=4.29), “promote staff retention” (M=4.21), and “conduct daily unit operations” (M=4.19) were the job competencies that rated highest for effective job performance in a hospital setting. Additionally, she found that “maintain open door policy” and “serve as an advocate for staff” were perceived as the most essential competencies needed for first-line nurse managers to improve staff retention in a hospital setting.

In a recent study conducted by Jamal (2018) among nurses and physicians, it was found that work engagement had a moderate positive association of ($r = 0.317; p \leq 0.01$) with supervisory coaching. This finding indicated that the supervisor role is an essential aspect in terms of enhancing the level of work engagement among employees in the workplace. Similarly, Amabile, Schatzel, Moneta, and Kramer (2004) investigated the role of leaders in helping other employees and the impact it generates on work engagement. This exploratory research projected that adequate support to subordinates could increase the level of engagement among employees. The study’s qualitative analysis illuminated the role that effective leadership plays in providing psychological, physical, and social support to workers, which enhances their productivity.

Additionally, engagement can be evaluated by examining the quality of the two-way relationship between supervisors or managers and their subordinates (Robinson, Perryman & Hayday, 2004). When employees have high-quality relationships with their managers and supervisors, employees are willing to behave positively in the workplace (Saks, 2006). Thus, the
support of managers and supervisors can make employees more engaged in their work. Workers feel motivated when their supervisors encourage them and provide them with the resources to perform work efficiently.

Trusting, interpersonal relationships between employees and their supervisors in the workplace promote psychological safety in the work environment (Kahn, 1990; May, Gilson & Harter, 2004). For example, Cropanzano, Prehar, and Chen (2002) explained that the relationship between employees and their supervisors could influence interactional justice in the workplace. Moreover, Tyler and Blader (2003) carried out a study employing the group engagement model, and they found that people would be more engaged when outcomes were distributed fairly. Cropanzano and Mitchell (2005) noted that employees are more likely to have positive attitudes toward their organization and their supervisors if they receive economic and socioemotional resources fairly. These studies reveal that communication between employees and their supervisors and managers can play an essential role in enhancing work engagement in the workplace.

An interesting study by Song, Kolb, Lee, and Kim (2012) examined how the concept of leadership practice influenced employee work engagement. Their study looked at how transformational leadership policies and practices are correlated with work engagement and performance. A sample of 432 cases was selected from different profit-making organizations in Korea. Multiple regression analysis and SEM were used to measure the relationship between transformational leadership and work engagement. The findings established that transformational leaders inspired other employees in the provision of service to their clients. Workers were engaged in their duties because they felt that the organization’s leadership instituted practices that ensured their security, opportunities for promotion, and provision of the primary resources
needed to achieve tasks, for example, adequate allocations for employee training. The study concluded that transformational leaders can heighten productivity in an organization. Thus, the perceived support of leaders by employees results in higher work engagement and performance.

Leaders should support their subordinates through the provision of resources and other employee needs to promote sustainable work engagement. A study by Hewitt (2015) focused on creating and sustaining engagement in an organization. They carried out the study among the Aon Hewitt Top Companies for Leaders. The findings of the research showed that leaders, such as the chief operating officers, have the responsibility of building employee engagement through the provision of resources and other primary needs. The study also found that a higher level of employee engagement leads to an increase in company income. For instance, in the “Top Companies,” a 5% increase in the standard of employee engagement resulted in a 3% increase in revenue. The study concluded that the income of 270 companies rose from 2010 to 2013 because they maintained high levels of sustainable employee engagement.

Work engagement in the healthcare setting depends on the support employees receive from their supervisors, their training, the provision of necessary tools for diagnoses, and the dedication of the employees. A study by Sherwood (2013) explored the drivers of employee engagement in the delivery of quality services in a healthcare setting. A sample of 2,000 managers at a MedStar hospital in Maryland participated in the study. The findings indicated that providing training to the employees on how to achieve the long-term strategies of the MedStar hospital increased their engagement level. The study concluded that leadership support, supervision, and career development promoted work engagement.

Supervisory support of ethical standards reinforces sustainable work engagement. A study by Mauno et al. (2016) examined how work ethics, perceived emotional labor, and
leadership affected work engagement among employees. A sample of 3,466 nurses participated in a cross-sectional online survey. The researchers established that there was a negative correlation between work ethic feasibility and emotional labor. For example, the nurses who followed ethical standards at work in situations of emotional labor had higher work engagement compared to the nurses whose emotional labor surpassed their ethical standards. Taking the findings of these studies together, the author can assume that the relationship between a supervisor or manager and their subordinates might determine the level of work engagement in the workplace.

**Performance feedback.**

Performance feedback refers to “the degree to which carrying out the work activities required by the job results in the individual obtaining direct and clear information about the effectiveness of his or her performance” (Hackman & Oldham, 1976, p. 258). A study by Rusche (2016) investigated how performance feedback influenced the degree of work engagement. Rusche’s survey collected data on 22,000 leaders across the globe. The researchers found that leaders who provided feedback to their subordinates had workers with higher levels of work engagement than those who did not submit feedback to their employees. The study concluded that performance feedback is a vital measure of work engagement.

Additionally, feedback from managers makes employees more active in their work engagement. A study by Bakker, Tims, and Derks (2012) examined how feedback promoted activeness among employees and predicted work engagement. Their study was based on the JD-R model and hypothesized that workers who had a proactive personality were likely to craft their job to enhance their job performance and satisfaction. Questionnaires were used to collect data from a sample of 190 employees who worked in different agencies. The findings of the study
supported the assumption of the JD-R model by finding that those workers who had a proactive personality crafted their jobs. These workers increased their work structure, resources, and performance. Job crafting was also found to predict the engagement level of the employees and a higher score on duty performance. The study concluded that when proactive employees made adjustments in the work environment after induction, they become well engaged in their duties.

A study by Schaufeli and Bakker (2004) examined the influence of job resources (e.g., performance feedback, social support, and supervisory coaching) on the turnover intention with work engagement as a mediating variable. The researchers employed SEM with survey data from 1,698 Dutch workers to simultaneously analyze data for four independent occupations. The findings showed that there was a positive correlation between performance feedback and work engagement. They also revealed that work engagement had a negative relationship with turnover intention when engagement mediates the relationship between job resources and turnover intention. Another interesting study was done by Jamal (2018); he conducted a study among nurses and physician to exam the relationship between performance feedback and work engagement. He found that work engagement had a moderately positive association of ($r = 0.362; p \leq 0.01$) with performance feedback. Therefore, taking the results of these three studies together, it is reasonable to suggest that performance feedback might determine the level of work engagement in the workplace.

**Job autonomy.**

Job autonomy refers to “the degree to which a job requires a variety of different activities in carrying out the work, which involves the use of some different skills and talents of the person” (Hackman & Oldham, 1976, p. 257). Job autonomy is the ability of employees to express themselves clearly about the challenges, needs, and expectations in the workplace.
Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009b) conducted a diary study among staff at a Greek fast food company. They found that job resources (e.g., autonomy) have a significant positive correlation with work engagement, and that job autonomy has a positive impact on employee performance, which led to increases in the organization’s profit. Thus, giving employees a sense of autonomy might increase the level of engagement among employees, which may, in turn, translate to higher profit for organizations. The work of De Lange, De Witte, and Notelaers (2008) supports the findings from Xanthopoulou et al. (2009b). De Lange and colleagues conducted a two-wave study among employees in the private sector, employees in the public sector, and the self-employed. The sample consisted of 4,175 respondents in the first survey and 1,670 in the second survey. The goal of the study was to explore the relationships between job resources, work engagement, and actual turnover over time. The study focused on three groups: stayers, promotion makers, and external job movers. The researchers used SEM to analyze the data, and the reliability (Cronbach’s α) of the job autonomy scale was T1 = 1.94; T2 = 2.82. The study found that when employees experience a low level of job resources and job autonomy in the workplace, they are more likely to move to another company. Additionally, they found that improving autonomy, departmental resources, and work engagement across time might be the best remedy for the reduction of actual turnover.

The study by Jamal (2018), which he conducted among nurses and physicians in the Sultanate of Oman and the United Arab Emirates, examined the relationship between job autonomy and work engagement. He found that the level of work engagement among employees could be determined by job autonomy; he found that work engagement had a moderately positive association of \((r = 0.374; \ p \leq 0.01)\) with job autonomy. Thus, the results of these studies show the importance of job autonomy on both work engagement and actual turnover. Therefore, taking
these two studies together, the author can hypothesize that job autonomy might determine the level of work engagement in the workplace.

**Learning opportunities.**

When employees feel that they have enough job resources to stimulate their personal career growth, this can lead employees to be more motivated at work (Demerouti et al., 2001; Schaufeli et al., 2009). Because cognitive work has come to be an essential demand in any job nowadays, opportunities for development become significant resources that employees want. Treating learning opportunities as a job resource can promote work engagement.

A study by Witt, Kacmar, and Andrews (2001) focused on how knowledge and experience gained in an organization support work engagement. A sample of 143 workers consisting of supervisors and their subordinates participated in the research. They responded to questions about their on-the-job learning experiences and how supervisors enhanced the abilities and skills of the employees. The results of the study showed correlations between employee training, development, work engagement, and positive output. The workers obtained new skills that promoted operational efficiency that made them more engaged in different tasks. The strength of the study is that it illustrates the significance of training and development for employees as a means to enhance their work engagement.

Additionally, a study by Taneja, Sewell, and Odom (2015) suggested that the provision of learning opportunities is supposed to be a long-term commitment between the workers and the company to ensure workers’ growth and competitiveness in international markets. The strength of their study is that, in today’s global society, it is critical for company leaders to focus on developing learning opportunities for their subordinates. Engaged workers are more committed to their roles and feel connected to the achievements of the company. Also, engaged employees
believe in the institution's mission, values, and vision. Thus, these two studies together encourage the author to assume that learning opportunities might determine the level of work engagement in the workplace.

**Work Engagement Consequences**

**Turnover Intention.**

Turnover intention refers to “conscious and deliberate willfulness to leave the organization” (Tett & Meyer, 1993, p. 262). Abbasi and Hollman (2000) defined turnover in their study as the movement of employees from an organization to another organization or a change in status from employed to unemployed. Employee turnover costs U.S. businesses approximately $11 billion annually, and about $1 million for every ten managerial employees deciding to quit their jobs (Abbasi & Hollman, 2000). In the same vein, Alexander, Bloom, and Nuchols (1994) insist that the costs of employee turnover are substantial for any organization.

Many researchers share the widely held view that there are several factors behind employee turnover, and no one reason will explain it thoroughly. Harrison, Torres, and Kukalis (1988) argued that employees or employers might be the cause of employee turnover. Additionally, some of the reasons why turnover is high in some companies are a lack of support, a lack of promotion opportunities, low wages, and an unhealthy working environment.

A study by Halbesleben and Wheeler (2008) investigated the relative roles of work engagement in predicting turnover intention and job performance. A sample of 573 employees working in different industries in the United States was selected randomly to participate in the study. The respondents consisted of 225 males and 348 females. The results of the study showed that there was a negative correlation ($r = -0.16$) between work engagement and the intention of the employees to leave the organization. The study also reported that those employees who were
less engaged easily detached themselves from the organizations. The researchers concluded that those workers who were highly engaged did not feel like leaving because they felt they had put a lot of energy and skills into building the organization’s reputation.

Another interesting study by Zakiy (2018) examined the relationship among nurses’ demographic factors, quality of nurses’ work life (QNWL), and turnover intention with nurses’ work engagement. The study looked at how these three variables correlated with work engagement. A sample of 207 cases was selected from different hospitals in the Saudi eastern province. Multiple regression analysis and Pearson’s correlation were used as statistical techniques to study the relationships between three work engagement dimensions (vigor, dedication, and absorption) and nurses’ turnover. She found that turnover had a low negative correlation with vigor \( r = -0.209; p < 0.001 \), and she found a low, but significant, negative correlation between turnover and dedication \( r = -0.189; p \leq 0.003 \). The study concluded that lower scores of vigor or dedication were associated with slightly higher scores for turnover intention. Thus, enhancing the level of work engagement results in a lower level of employee turnover.

**Chapter Summary**

In conclusion, this chapter first explained the differences between work engagement and other related concepts and found that work engagement does differ in specific ways from organizational commitment, job satisfaction, and job involvement. The significant difference between work engagement and other related concepts is that engagement focuses on the employee’s attitude at work. This chapter then reviewed several studies that demonstrated the positive impact of work engagement on several outcomes (e.g., performance, productivity, customer satisfaction) since the 1990s. The first academic research study of the antecedents and
consequences of job and organizational engagement was described. Several studies have found that job resources (e.g., supervisory support, performance feedback, job autonomy, and learning opportunities) have a significant relationship with work engagement. Additional studies found that job resources (e.g., supervisory support, performance feedback, job autonomy, and learning opportunities) have a significant positive relationship with work engagement and a negative correlation with turnover intention. Thus, in this study, it is hypothesized that job resources might reduce the level of employee turnover intention with work engagement serving as a mediator.
Chapter 3

METHODS

The primary intent of this quantitative study is to explore and identify the mediating effects of work engagement on the relationship between job resources (performance feedback, supervisory support, job autonomy, and learning opportunities) and employees’ turnover intention in the Saudi context. Studying the mediating influence of work engagement between job resources and turnover intention helps healthcare practitioners and decision-makers to understand better other factors associated with nurses’ work engagement and turnover intentions. This study applies this conceptual framework to the nursing staff at the Royal Commission Medical Center (RCMC) in Yanbu Industrial City in the Kingdom of Saudi Arabia (KSA). This chapter is divided into several sections that explain how the study will be conducted and covers the following topics: Research questions, survey method, population and sample selection for the study, instruments for measuring the variables in the study, data collection strategies, variables employed in the study, and data analysis strategies.

Research Questions

To study the relationships among the variables of interest in this study of the nursing personnel in the Saudi Arabian healthcare system, the research aims to answer these research questions:

RQ1. To what extent do the demographic characteristics of nurses (i.e., gender, age, level of education, marital status, years of work experience, job category, nationality, and salary) influence turnover intention and three work engagement dimensions (vigor, dedication, and absorption)?
RQ2. To what extent do the four job resource dimensions (performance feedback, supervisory support, job autonomy, and learning opportunities) influence the work engagement dimensions (vigor, dedication, and absorption) and turnover intention among nurses working in the health services program at the RCMC in Yanbu, KSA?

RQ3. To what extent do the dimensions of work engagement influence employee turnover intention among nurses working in the health services program at the RCMC in Yanbu, KSA?

RQ4. To what extent does work engagement mediate the relationship between the various job resources and employee turnover intention among nurses working in the health services program at the RCMC in Yanbu, KSA?

**Study Design**

A quantitative survey design was used to answer the research questions of the present study. Creswell (2014) explains that a survey design aims to collect data from the target population based on the research questions and describes these data by providing numeric descriptions of trends, attitudes, or opinions of the studied population. According to Levin (2006), a cross-sectional study design refers to one that is focused on gathering information about the variables of interest at one point in time, or over a short period.

The design of the questionnaire was based on the model of Dillman and colleagues’ tailored design method (TDM), which was originally developed in 1978. TDM provides a framework for survey creation and implementation, and it has been shown to yield high response rates and reduce common types of error throughout the survey process.
The TDM outlines some factors that should be considered in the design of questionnaires (e.g., instrument design and data collection procedures). Dillman, Smyth, and Christian (2014) revised the TDM by using social exchange theory as the foundation for the TDM to better understand factors that might motivate individuals to fill out the survey. These factors can play an essential role in term of maximizing response rate and reducing common types of error. Indeed, they stated that response rates could be maximized in three ways: (1) by minimizing the costs of responding (e.g., reducing time or physical or mental effort); (2) maximizing the rewards for completing a survey (e.g., providing gifts); and (3) establishing trust that those rewards will be delivered. In other words, they emphasized that participants are more motivated and willing to fill out a survey if they expect to benefit by doing so, such as receiving a gift in return.

Additionally, the benefits of using the TDM is not only helpful for maximizing response rate; this approach enables a researcher to reduce common types of error throughout the survey process, such as coverage, sampling, no response, and measurement (Dillman et al., 2014). This approach was developed based on three fundamental concepts: error reduction, survey procedure construction, and positive social exchange. Because the TDM can help to provide a high response rate and reduce common types of error, the TDM was used as the approach to design the questionnaire in this study as well as guide the delivery process.

**Target Population and Sampling**

The study was conducted among nurses working in the RCMC. The RCMC is located in the western province of Saudi Arabia in Yanbu Industrial City. The capacity of the RCMC is 342 beds with a total of 2,491 employees who work in three main divisions: the Medical Service Division, the Administrative Services Division, and the Medical Support Services Division. The Medical Support Services Division administers the Nursing Department. The KSA Ministry of
Health (2015) gave the total number of hospitals in the Kingdom as 462. The Ministry of Health operates 247 hospitals, another 43 hospitals are also government-run, and 145 hospitals in the KSA are privately operated (Table 3-1). The RCMC is included in the category “Other Government Hospitals.”

Table 3-1

Total Number of Hospitals /Nurses in the KSA.

<table>
<thead>
<tr>
<th>Type of Hospital</th>
<th>Total Number of Hospitals</th>
<th>Total Number of Nurses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Health Hospitals</td>
<td>247</td>
<td>95,379</td>
</tr>
<tr>
<td>Other Governmental Hospitals</td>
<td>43</td>
<td>35,119</td>
</tr>
<tr>
<td>Private Hospitals</td>
<td>145</td>
<td>41,985</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>435</strong></td>
<td><strong>172,483</strong></td>
</tr>
</tbody>
</table>

*Sources: The Ministry of Health 2015*

Population.

The target population for this study is all nurses working in the Madinah region in western Saudi Arabia. The KSA Ministry of Health (2015) reported a total of 172,483 nurses working in 2016 (Table 3-1). The majority—95,379 nurses—work in the Ministry of Health (MOH) hospitals, while 35,119 nurses work in other government-run facilities, and 41,985 nurses work in private hospitals. Urdan (2010) defined a population as all the individuals who represent the membership of a particular group or category of interest. In the present study, the population is defined as all employees working in nursing positions in the Madinah region in western Saudi Arabia. Lavrakas (2008) describes a “target population” as the group to which the
researcher would like to generalize the findings of the study. Based on this definition, the target population of the study is all individuals who meet the following criteria: (1) the participant is employed as a nurse in the Madinah region, (2) the participant is a full-time employee, and (3) the participant’s experience is one year or more. The sample will be drawn from the target population.

**Sample.**

The researcher conducted a survey among a sample of nurses working at the RCMC. General information about the composition of the nursing staff obtained from the Human Resources and Information Technology Departments of the RCMC is given in Table 3-2. The total number of employees on the nursing staff in RCMC is 498, and they are classified in seven groups based on their positions: nursing director, nursing manager, nursing supervisor, registered nurse, nurse-technician, nursing administrative support, and nurse-trainee.

Sample size adequacy was determined by using a table for deciding the minimum sample size (Krueger, 2001). Based on the table, the minimum size of the sample was estimated to be 196 employees. Because the researcher wanted a 95% confidence level and a 5% confidence interval, the Krejcie and Morgan table proposed 196 nurses as the sample size for this study. The determination of sample size adequacy is based on three factors: population size, confidence level, and confidence interval. Barlett, Kotrlik, and Higgins (2001) assert that by using this calculation, the research findings can be generalized to a population within the limits of random error. Barlett et al. (1999) defined the margin of error as the difference between any participant’s opinion and that of the entire population. In this study, the 5% margin of error was adopted considering the kind of self-report data that were collected.
Table 3-2

*General Information about Nursing Personnel at RCMC.*

<table>
<thead>
<tr>
<th>Position</th>
<th>Classification</th>
<th>Male</th>
<th>Female</th>
<th>of Nurses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing Director</td>
<td></td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Nursing Manager</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>Nursing Supervisor</td>
<td></td>
<td>37</td>
<td>6</td>
<td>43</td>
<td>9.7</td>
</tr>
<tr>
<td>Registered Nurse</td>
<td></td>
<td>71</td>
<td>372</td>
<td>443</td>
<td>90.0</td>
</tr>
<tr>
<td>Nurse-Technician</td>
<td></td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Nursing Admin Support</td>
<td></td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Nurse-Trainee</td>
<td></td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>111</td>
<td>387</td>
<td>498</td>
<td>100</td>
</tr>
</tbody>
</table>

*Sources: RCMC HR Department (2017)*

**Research Variables**

The primary intent of this quantitative study is to examine the relationships between job resources (performance feedback, supervisory support, job autonomy, and learning opportunities) and employees’ turnover intention with work engagement used as a mediating
variable. On the basis of the JD-R model of work engagement proposed by Bakker and Demerouti (2007), the four job resources subscales were used as independent variables in the study, and employees’ turnover intention was the dependent variable. Work engagement measured on the three dimensions of vigor, dedication, and absorption was the mediator variables. Additionally, the study included demographic information (e.g., gender, age, level of education, salary per month, and job category). Creswell (2014) suggested that it is useful to link the variables in the study to specific items of the survey questionnaire and particular research questions. Table 3-3 summarizes of all variables, the research questions, and statements in the survey instrument used to measure the variables.

**Table 3-3**  
*Variable Name, Statement for each Variable, research question, and Name of Instrument*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Questions</th>
<th>Statement</th>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>RQ2&amp;4</td>
<td>1. My job gives me complete responsibility for deciding how and when the work is done.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. My job denies me any chance to use my personal initiative or judgment in carrying out the work.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. My job gives me a considerable opportunity for independence and freedom in how I do the work.</td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>RQ2&amp;4</td>
<td>1. My job is set up so that I get constant</td>
<td></td>
</tr>
</tbody>
</table>

Job Diagnostic Survey (JDS)
<table>
<thead>
<tr>
<th>Variables</th>
<th>Questions</th>
<th>Statement</th>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>feedback</td>
<td>“feedback” about how well I am doing. 2. Just doing the work required by the job provides many chances for me to figure out how well I am doing. 3. My job itself provides very few clues about whether or not I am performing well.</td>
<td>Diagnostic Survey (JDS)</td>
<td></td>
</tr>
<tr>
<td>Learning</td>
<td>RQ2&amp;4</td>
<td>1. Do you learn new things in your work? 2. Does your job offer you opportunities for personal growth and development? 3. Does your work give you the feeling that you can achieve something? 4. Does your work offer you the possibility of independent thought and action?</td>
<td>Questionnaire on the Experience and Evaluation of Work (QEEW2.0)</td>
</tr>
<tr>
<td>Supervisor</td>
<td>RQ2&amp;4</td>
<td>1. My supervisor/manager is concerned about the welfare of those under them. 2. My supervisor/manager pays attention to what I am saying. 3. I am exposed to hostility from my supervisor/manager. 4. My supervisor/manager is helpful in</td>
<td>Job Content Questionnaire (JCQ)</td>
</tr>
<tr>
<td>Variables</td>
<td>Questions</td>
<td>Statement</td>
<td>Instrument</td>
</tr>
<tr>
<td>------------</td>
<td>----------------------------------</td>
<td>------------------------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td></td>
<td>getting the job done.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turnover</td>
<td>RQ1, 2,3, and 4</td>
<td>1. I sometimes think about changing my job.</td>
<td>Questionnaire on the Experience</td>
</tr>
<tr>
<td>Intention</td>
<td></td>
<td>2. I sometimes think about seeking work outside this organization.</td>
<td>Experience and Evaluation of Labour</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Next year, I plan to change jobs.</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>RQ1</td>
<td>1- Male</td>
<td>Binary category</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2- Female</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>RQ1</td>
<td>Drop list from 20 to 70</td>
<td>Drop list from 20 to 70</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Diploma (2 years).</td>
<td>Categorical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Diploma (3 years).</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Bachelor's degree</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Master's degree or higher.</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>RQ1</td>
<td>1. 1 – 5.</td>
<td>Categorical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. 6 – 11.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. 12 -16.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. More than 16</td>
<td></td>
</tr>
<tr>
<td>Work</td>
<td>RQ1</td>
<td>1. Nursing Director.</td>
<td>Categorical</td>
</tr>
<tr>
<td>Experience</td>
<td></td>
<td>2. Nursing Manager.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Nursing Supervisor.</td>
<td></td>
</tr>
<tr>
<td>Variables</td>
<td>Questions</td>
<td>Statement</td>
<td>Instrument</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------</td>
<td>----------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>4. Registered Nurse.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Nursing Technician.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Nursing - Admin Nursing – Trainee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital of Status</td>
<td>RQ1</td>
<td>1- Never married.</td>
<td>Categorical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2- Divorced.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3- Widowed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4- Married.</td>
<td></td>
</tr>
<tr>
<td>Salary per month</td>
<td>RQ1</td>
<td>1- Less than 5000 SR (Saudi Riyal).</td>
<td>Categorical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2- 5001~ 10000 SR.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3- More than 10001 SR.</td>
<td></td>
</tr>
</tbody>
</table>
| Nationality       | RQ1       | 1- Saudi                               | Binary     
<p>|                   |           | 2- Non- Saudi                          | category   |
| Work Engagement (Vigor) | RQ1, 2, 3, and 4 | 1. At my work, I feel bursting with energy. |            |
|                   |           | 2. At my job, I feel strong and vigorous |            |
|                   |           | 3. When I get up in the morning, I feel like going to work |            |
| Work Engagement (Dedication) | RQ1, 2, 3, and 4 | 1. I am enthusiastic about my job. | UWES-9    |
|                   |           | 2. My job inspires me.                 |            |
|                   |           | 3. I am proud of the work that I do.   |            |
| Work Engagement   | RQ1, 2, 3, and 4 | 1. I feel happy when I am working intensely. |            |</p>
<table>
<thead>
<tr>
<th>Variables</th>
<th>Questions</th>
<th>Statement</th>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Vigor)</td>
<td>2. I am immersed in my job.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. I get carried away when I’m working.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note:* Autonomy, performance feedback, and turnover intention response scale for Likert response scale items: 1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = neither disagree nor agree; 5 = moderately agree; 6 = agree; and 7 = strongly agree. Learning opportunities and Supervisor support response scale for Likert response scale items: 1 = Never; 2 = Some; 3 = Often; and 4 = Always. Work Engagement response scale for Likert response scale items: 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. M = mean; SD = standard deviation; Min = Minimum; and Max = Maximum.

**Independent Variables**

In this study, the independent variables include the following four job resource subscales created from summated Likert scores: performance feedback, supervisory support, job autonomy, and learning opportunities.

**Job autonomy.**

To measure job autonomy, the job characteristic model (JCM) instrument produced by Hackman and Oldham (1975, 1980) was used. Job autonomy was measured on seven-point Likert response scales ranging from (1) strongly disagree to (7) strongly agree. Participants respond to three items using a seven-point Likert scale: (a) my job gives me complete responsibility for deciding how and when the work is done; (b) my job denies me any chance to use my personal initiative or judgment in carrying out the work; and (c) my job gives me considerable opportunity for independence and freedom in how I do the work. Additionally, the researcher presumes that there is a negative correlation between job autonomy and turnover intention, so an increase in job autonomy is going to reduce the level of turnover intention. Additionally, the researcher assumes that there is a positive correlation between job autonomy and the three dimensions of work engagement, so an increase in job autonomy is going to increase the levels of the three dimensions of work engagement.
Performance feedback.

To measure performance feedback, the JCM instrument produced by Hackman and Oldham (1975, 1980) was used. The performance feedback subscale consists of three items. The three items include: (a) My job is set up so that I get constant “feedback” about how well I am doing; (b) Just doing the work required by the job provides many chances for me to figure out how well I am doing; (c) My job itself provides very few clues about whether or not I am performing well. The summated Likert score was used to examine the relationship between performance feedback and work engagement as well as turnover intention. The summated Likert score helped to answer the related research question about the influence of performance feedback on both work engagement and turnover intention. Performance feedback was measured on a seven-point Likert response scale ranging from (1) strongly disagree to (7) strongly agree. Participants responded to three items associated with performance feedback. The researcher predicts that a negative correlation exists between supervisory support and turnover intention; so, a high level of performance feedback is going to reduce the level of turnover intention. Additionally, the researcher assumes that there is a positive correlation between performance feedback and the three dimensions of work engagement, so an increase in the level of performance feedback is going to increase the levels of the three dimensions of work engagement.

Supervisor support.

Supervisory support was measured using four items from the Job Content Questionnaire (JCQ) developed by Karasek in 1985. The four items include: (a) My supervisor/manager is concerned about the welfare of those under them; (b) My supervisor/manager pays attention to what I am saying; (c) I am exposed to hostility from my supervisor/manager; (d) My
supervisor/manager is helpful in getting the job done. The summated score will be used to examine the relationship between performance feedback and work engagement, as well as turnover intention. Additionally, supervisory support will be measured on a four-point Likert response scale ranging from (1) “Never” to (4) “Always.” The responses on this scale were coded as follows: “Never” will be coded as “1”; “Some” will be coded as “2”; “Often” will be coded as “3”; and “Always” will be coded as “4.” Because the researcher assumes that there is a negative correlation between supervisory support and turnover intention, an increase in the availability of supervisory support is expected to reduce the level of turnover intention. Additionally, the researcher assumes that higher levels of supervisory support should be reflected in higher levels of the three dimensions of work engagement.

**Learning opportunities.**

Learning opportunities were measured using four items from the Questionnaire on the Experience and Evaluation of Work (QEEW2.0) developed by Van Veldhoven, Meijman, Broersen, and Fortuin (2002). The four items include: (a) Do you learn new things in your work? (b) Does your job offer you opportunities for personal growth and development? (c) Does your work give you the feeling that you can achieve something? (d) Does your work offer you the possibility of independent thought and action? The summated score is used to examine the relationship between learning opportunities and work engagement as well as turnover intention. Responses to the survey items use a four-point Likert scale ranging from (1) “Never” to (4) “Always.” The responses were coded as follows: “Never” was coded as “1”; “Some” was coded as “2”; “Often” was coded as “3”; and “Always” was coded as “4.” Because the researcher expects that there is a negative correlation between learning opportunities and turnover intention, an increase in learning opportunities should reduce the level of turnover intention. Additionally,
the researcher assumes that there is a positive correlation between learning opportunities and the three dimensions of work engagement.

**Mediating Variable**

**Work engagement.**

The mediating variable in this study is work engagement, which has three dimensions: vigor, dedication, and absorption. Schaufeli et al. (2002, p. 74) defined work engagement as “absorption.” Vigor refers to “individuals’ feelings that they possess physical strength, emotional energy, and cognitive liveliness—a set of interrelated affective states experienced at work” (Bakker & Leiter, 2010, p. 69). Dedication refers to individuals’ involvement in their work with a high level of motivation, enthusiasm, and desire for challenge. Absorption describes employees who are fully focused on the quality of their performance and show reluctance to detach them from work (Schaufeli & Salanova, 2008). The Utrecht Work Engagement Scale (UWES-9; Schaufeli et al. 2002) was employed to measure the dimensions of work engagement. Vigor was measured by the responses to three items on the survey: (a) At my work, I feel bursting with energy; (b) At my job, I feel strong and vigorous; and (c) When I get up in the morning, I feel like going to work. A dedication was measured by the responses to three items on the survey: (a) I am enthusiastic about my job; (b) My job inspires me, and (c) I am proud of the work that I do. Employees’ level of absorption in their work was measured by the responses to the following three items on the survey: (a) I feel happy when I am working intensely; (b) I am immersed in my job; (c) I get carried away when I’m working. The researcher contacted the author of the UWES-9 scale and obtained permission to use it in the survey.

The items used to measure the dimensions of work engagement employed a seven-point Likert scale with possible responses ranging from (0) “Never” to (6) “Every day.” Because the
researcher predicts that a negative correlation exists between the three dimensions of work engagement and the turnover intention, higher scores on the three dimensions of work engagement will produce a reduction in the level of turnover intuition. Additionally, because the researcher assumes that there is a positive correlation between the three dimensions of work engagement and job resources, an increase in the availability of job resources should increase the levels of the three dimensions of work engagement.

**Dependent Variable**

**Turnover intention.**

In this study, the dependent variable is the employees’ turnover intention. The turnover intention was measured using the responses to four items from the Questionnaire on the Experience and Evaluation of Labour (QEEL; Van Veldhoven & Meijman, 1994). These four items include: (a) I sometimes think about changing my job; (b) I sometimes think about seeking work outside this organization, (c) Next year, I plan to change jobs; and (d) Next year, I plan to look for a job outside this organization. The summated Likert score from these four items serves as a measure of self-reported turnover intention. This variable will be used to evaluate the influence of job resources on employees’ turnover intention and the mediating effects of work engagement on the relationship between job resources (performance feedback, supervisory support, job autonomy, and learning opportunities) and employees’ turnover intention.

Responses to the four survey items comprising the turnover intention scale employ a seven-point Likert scale that ranged from (1) “Strongly disagree” to (7) “Strongly agree.” “Strongly disagree” was coded as “1”; “Disagree” was coded as “2”; “Somewhat disagree” was coded as “3”; “Neither agree nor disagree” was coded as “4”, “Somewhat agree” was coded as “5”;
“Agree” was coded as “6”; and “Strongly agree” was coded as “7.” Higher scores indicate that participants are very interested in changing their current jobs and seeking other jobs.

**Instrumentation and Reliability**

The survey instrument used in the present study adapts portions of several existing survey instruments and combines them in a single, web-based questionnaire. The survey items were used to measure several variables as described below.

**Turnover Intention.**

The turnover intention was measured by employing items taken from the QEEL; Van Veldhoven & Meijman, 1994). Turnover intention refers to the “conscious and deliberate willfulness to leave the organization” (Tett & Meyer 1993, p. 262). Measuring the turnover intention of employees can help to predict the actual turnover for employees (Egan, Yang & Bartlett, 2004). Thus, the main purpose of measuring employees’ turnover intentions among nurses at the RCMC is to predict turnover in the future. With respect to the internal consistency of this scale of measurement, the overall average value for Cronbach's $\alpha$ coefficients in most studies ranged from $\alpha = 0.70$ to $\alpha = 0.76$ (Lieke, Bakker & Euwema 2010; Schaufeli & Bakker 2004). Recently, Maiuro (2015) applied the QEEL and obtained a Cronbach's $\alpha$ coefficient of $\alpha = 0.78$. Because this scale has an acceptable level of internal consistency, this study utilizes the four-item scale that uses a seven-point Likert response scale ranging from (1) “Strongly disagree to (7) “Strongly agree.” Examples of items are: “I sometimes think about changing my job” and “I sometimes think about seeking work outside this organization.”

**Job resources.**

Job resources are an antecedent in the JD-R model, which is a restrictive model that considers work engagement as a variable that mediates the relationship between job resources
and positive outcomes. Job resources in this study are independent variables because they will be evaluated with respect to their power to predict employees’ turnover intention with work engagement mediating the relationship between them. Job resources refer to the physical, psychological, social, or organizational aspects of the job that may: (a) reduce job demands and the associated physiological and psychological costs; (b) be functional in achieving work goals; and (c) stimulate personal growth, learning, and development (Demerouti et al., 2001).

Therefore, job resources can be measured by using variables that facilitate job fulfillment. In this study, four kinds of job resources are considered: autonomy; performance feedback; supervisory support; and learning opportunities. Measuring these variables can help to determine the relationship between job resources and employees’ turnover intention with work engagement mediating the relationship. All these variables are measured at the task level because this study aims to measure nurses’ engagement related to the kinds of work they do. Autonomy and performance feedback are measured using items from the JDS; supervisory support uses measurements drawn from the Job Content Questionnaire, and learning opportunities are measured using items from the QEEW2.0. The following section will describe each of these instruments, along with the measurement scale for turnover intention.

**Job autonomy and performance feedback instruments.**

Hackman and Oldham (1975, 1980) developed the Job Characteristics Model (JCM), which consists of five job characteristics (i.e., skill variety, task significance, task identity, autonomy, and task feedback). Additionally, they developed the Job Diagnostic Survey (JDS) as a measurement instrument to validate their model. The JDS is employed in this study to measure autonomy and performance feedback. Several studies found that Cronbach’s α for the JCM was 0.70 or higher. This value is considered an acceptable level of internal consistency. Yet other
studies found that Cronbach’s α for autonomy and performance feedback ranged from 0.72 to 0.82. For example, Buys, Olckers, and Schaap (2007) reported that the internal consistency for the autonomy measure was $\alpha = 0.72$ and that for performance feedback was $\alpha = 0.79$.

Additionally, Saks (2006) reported values for Cronbach’s α of 0.70 for all five job characteristics, while Johari, Mit, and Yahya (2010) reported value for Cronbach’s α of 0.82 for autonomy and 0.79 for performance feedback. Kass, Vodanovich, and Khosravi (2011) reported the value of Cronbach’s α as 0.71 for performance feedback.

In this study, autonomy and performance feedback are identified as two of the four job resources, and their measurement will be extracted from the six-item JDS instrument. These two job resources will be measured using seven-point Likert response scales ranging from (1) “Strongly disagree” to (7) “Strongly agree.” An example of a question for assessing autonomy is: “My job gives me a considerable opportunity for independence and freedom in how I do the work,” and an example of a question for assessing performance feedback is: “My job itself provides very few clues about whether or not I am performing well.”

**Learning opportunities.**

The QEEW2.0, introduced by Van Veldhoven, Meijman, Broersen, and Fortuin (2002) was adapted to measure the job resource variable, learning opportunities. The QEEW2.0 is an intact instrument based on the concept of job content, developed by Karasek (1985). Because the present study was conducted in a healthcare organization, the QEEW2.0 is an especially appropriate instrument to use because it is widely used in occupational health services and applied research (Schaufeli, Bakker & Van Rhenen, 2009). Additionally, Van Ruysseveldt and van Dijke (2011) state that QEEW2.0 is considered a valuable assessment tool for psychosocial workload and work stress. These authors also mentioned that the goal of using QEEW2.0 is to
enhance the psychometric evaluation of workplace quality. Permission to use this instrument was
gained by contacting the developer via his website. With respect to its internal consistency, the
QEEW2.0 has been tested frequently in several studies, and it demonstrated high internal
consistency. For instance, Van Ruysseveldt and Van Dijke (2011) report that the value of
Cronbach's $\alpha$ for learning opportunities was 0.85. Schaufeli et al. (2009) report values for
Cronbach's $\alpha$ of $\alpha_{T1} = 0.84$ and $\alpha_{T2} = 0.84$. Four items on the survey represent the dimension of
learning opportunities, and all are measured on a four-point Likert response scale ranging from
(1) “Never” to (4) “Always.” A sample item is: “Do you learn new things in your work?”

**Supervisory support.**

Supervisory support is measured using items from the JCQ developed by Karasek in
1985. The original instrument has 49 items in eight sections: skill discretion, decision authority,
decision latitude, psychological job demands, exertion, physical isometric loads, physical job
demand, and supervisor support. The primary purpose of using the JCQ is to evaluate the social
and psychological characteristics of jobs in order to predict the risks that employees might face
in the workplace. Also, it can be used to test hypotheses that relate to engagement. Karasek et al.
(1998) conducted a study to evaluate the reliability of the instrument involving the responses of
10,288 men and 6,313 women from six studies conducted in four different countries. In terms of
internal consistency, the overall average of the Cronbach's $\alpha$ coefficient values for the JCQ was $\alpha$
= 0.73 for the women and $\alpha = 0.74$ for the men. Specifically, Cronbach's $\alpha$ values for supervisory
support were among the highest, ranging from $\alpha = 0.80$ to $\alpha = 0.89$ for the men and from $\alpha =
0.83$ to $\alpha = 0.87$ for the women.

Additionally, Buxton et al. (2009) report a Cronbach's $\alpha$ of 0.86 in their study. The
dimension of supervisory support is measured using five items on the survey, each of which uses
a four-point Likert response scale ranging from (1) “Never” to (4) “Always.” A sample item is: “My supervisor is concerned about the welfare of those under them.”

**Work engagement.**

Several instruments have been developed to measure work engagement, such as the Gallup Workplace Audit (GWA; Harter et al., 2002), the Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002), the Job and Organization Engagement Scales (Saks, 2006), and the Employee Engagement Survey (EES; James, McKechnie & Swanberg, 2011). The decision was made to modify the UWES to measure the level of engagement of the nurses at the RCMC. The UWES, a self-report questionnaire, was developed by Schaufeli et al. (2002) to measure three dimensions of work engagement (vigor, dedication, and absorption) for a sample of 314 undergraduate students at the University of Castellon and 612 employees from 12 private and public companies in Spain. The scale was developed to accord with the definition of work engagement as “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli et al. 2002, p. 74). Researchers subsequently modified the UWES by reducing the number of items from 24 to 17 based on the psychometric evaluation. The shorter version had six items for measuring vigor, five items for measuring dedication, and six items for measuring absorption. The internal consistency of the scale is a measure of its reliability, that is, how well the items measure the same construct of interest. Field (2009), among many other researchers, recommends Cronbach’s alpha (α) as an indicator of internal consistency, and the measurement tool can be considered reliable if the value of Cronbach’s α is at least 0.70. Cronbach’s α for the UWES-17 in published applications is usually between 0.80 and 0.90, so the UWES-17 is considered a reliable tool to measure work engagement. Although Cronbach’s α for the UWES-17 was acceptable in the literature, the present study uses an even
shorter version of UWES. Schaufeli, Bakker, and Salanova (2006) modified the UWES-17 by reducing it to 9 items. Indeed, when they administered the UWES-9 to 14,521 people in ten different countries, they used Confirmatory Factor Analyses (CFA) to evaluate the factorial validity of the UWES-9. The results showed that the three dimensions of engagement measured by UWES-9 are moderately strongly related. Additionally, they found that the instrument has good internal consistency, and the value of Cronbach’s α ranged from 0.85 to 0.92. Specifically, Cronbach’s α for vigor ranged from 0.60 to 0.88; for dedication, from 0.75 to 0.90; and for absorption, from 0.66 to 0.86. The present study incorporates the UWES-9 to measure the three underlying dimensions of engagement among the sample of nurses at the RCMC. All items use a seven-point Likert response scale that ranges from (0) “Never” to (6) “Every day.” Use of a Likert scale allows qualitative data to be manipulated like quantitative data.

**Data Collection**

The researcher conducted several steps prior to starting data collection, including (a) developing the survey by using the web survey system of the Pennsylvania State University; (b) testing content validity and reliability; (c) conducting instrument translation procedures; (d) obtaining approvals from the Institutional Review Board (IRB; Appendix A); (e) obtaining approvals from the RCMC (Appendix B), and (f) data collection data procedures.

**Developing the Survey**

The survey questionnaire was developed by using the Survey Qualtrics website to collect data from participants. The survey instrument was modified from a combined pool of valid and reliable measurement tools previously tested and researched (Creswell, 2014; Sekaran & Bougie, 2013). The survey included 34 items compiled to understand the mediating effect of work
engagement, and eight questions related to the demographic characteristics of the participants (e.g., gender, age, level of education, marital status, years of experience, position title, nationality, and salary). After the survey was developed, the researcher posted it online via the Qualtrics application (Appendices C, D, and E).

The questionnaire was sent to all nurses at the RCMC in order to increase the chances of having a higher response rate. The questionnaire was accompanied by a cover letter that included the following information (a) the title of the study, (b) the name of the sponsor, (c) the goal of the study, (d) the importance of his/her responses, (e) a guarantee of confidentiality, (f) recognition of his/her contribution to social research, (g) brief directions for completing the survey, (h) the expected time to complete the survey, and (i) an advisory of implied consent to participate in the study. In addition to the measurement scales, respondents were asked to answer demographic questions about gender, age, level of education, nationality, years of experience, and position classification. The items used for measuring the research variables followed those questions. Finally, a letter of thanks invited the respondent to participate in a drawing for one of six Visa gift cards.

**Instrument Validity**

Reliability and validity are the two most essential features in the evaluation of any measurement instrument. Thus, the first draft of the survey questionnaire was used to assess the reliability and validity of the questionnaire. Validity refers to the truthfulness of findings (Altheide & Johnson, 1994). Creswell (2014) stated that testing for validity helps to ensure that the questionnaire will measure what we want it to measure. He also stated that there are different kinds of validity for instruments (e.g., content, criterion, construct, and face). Creswell (2014)
writes that content validity establishes how well the items, or survey questions, represent the entire range of possible subjects the survey should cover.

Establishing the content validity of the instrument in the present study was achieved by asking a panel of experts to evaluate the survey instrument. The content validity was measured by relying on the knowledge of employees (a panel of experts) who are familiar with the topic. In this study, a panel of experts (three nurses from the RCMC) were asked to evaluate the content of the survey (e.g., Am I asking the right questions? Did I cover everything about the topic? Did the terminology in the survey make sense to nurses in Saudi Arabia?). Then, the survey questionnaire was revised based on feedback from the panel of experts, who evaluated the instrument in terms of its face and appropriateness, along with content.

Instrument Reliability

After the approval of the IRB was attained (to be discussed later in this chapter), the researcher conducted a pilot test to estimate the reliability of the instrument. Reliability refers to the stability of the findings (Altheide & Johnson, 1994). A pilot test refers to a test that helps to determine the feasibility of conducting the same study on a larger scale. The primary goal of conducting the pilot test was to ensure that all the nurse respondents would understand the questions in the same way. Also, it helped the researcher to target problems and highlight issues that might be encountered during the actual study, such as missing data and skewed response sets.

There were four steps involved in the pilot test. First, the researcher asked approximately 50 nurses to fill out the survey; none of these 50 would be included in the actual study sample. Second, the survey was delivered using the same procedures that were planned for the actual study. This step can help to evaluate the appropriateness of the data collection procedure before
conducting the actual study. Based on the evaluation, the researcher can identify and correct problems. Third, the researcher collected the data submitted by the 50 participants in the pilot test, and then the data were entered into the SPSS program to obtain Cronbach’s alpha coefficients. The acceptable score for Cronbach’s $\alpha$ will be in the range of 0.70 to 0.99 to ensure the reliability of the instrument. The results of the pilot test indicated that all the instruments used in the survey reached an acceptable score for internal consistency. Cronbach’s $\alpha$ for the pilot study results ranged from 0.71 to 0.88.

**Instrument Translation**

After content validity was achieved, the survey questionnaire was translated from English to Arabic. Maneesriwongul and Dixon (2004) reviewed 47 studies that involved translation techniques for quantitative research instruments, and they discussed several methods of evaluating translations, such as back-translation, forward-only translation with testing, and the monolingual test. In this study, the back-translation method was used to transfer the instrument from English into Arabic. The process involves four stages to ensure that the translation process does not change the original meaning of each item in the questionnaire. First, an HR manager, a native Arabic speaker who received their degree in the USA, was asked to translate the survey from English to Arabic. Second, after the translated questionnaire in Arabic from the selected HR manager was completed, it was sent to another native Arabic-speaking HR manager who received a university degree in the USA to translate the questionnaire from Arabic to English. Third, once the second English version of the questionnaire was received, it was compared with the original English-language version of the instrument. The two bilingual HR managers were asked to look for inconsistencies between the original and final English versions and asked to modify the Arabic language instrument. By following this approach, the researcher was
confident that the content of the Arabic-language instrument carries the same meaning as the original English-language instrument, and it will measure what it is supposed to measure.

**Approval of the PSU IRB**

In order to conduct the study, the researcher had to receive the approval of the Pennsylvania State University Institutional Review Board (IRB) as well as the approval of the hospital administration where the nurses are employed. Thus, after the survey instrument was designed, translated and its content validated, the researcher obtained approval from the Pennsylvania State University’s IRB to conduct the study before distributing the instrument. The approval process consisted of four steps. First, the researcher completed the mandatory online Collaborative Institutional Training Initiative (CITI) program. Second, the researcher completed the IRB Research Project Application. Third, the researcher submitted a formal proposal for the study. Fourth, official approval to conduct the study was granted. All four steps are required by the Pennsylvania State University to ensure the protection of human subjects (i.e., the nurses) in this study.

**Approval from the RCMC**

The researcher gained formal permission to distribute the survey questionnaire by e-mail from the HR manager at the RCMC. After the HR manager approved the request, the researcher contacted the Information Technology (IT) Department at the RCMC to obtain formal permission to distribute the survey questionnaire, along with the recruitment letter, to all nurses through the RCMC’s internal communication system (Outlook Web).
Data Collection Method

A questionnaire—the most common type of self-report survey instrument—distributed to participants asks them to respond to statements and questions about themselves. In the present study, the survey was developed and made available to participants via the web survey system of the Pennsylvania State University—the Qualtrics Survey—to collect data relevant to the examination of the mediating effects of work engagement on the relationship between job resources and employees’ turnover intention. There are several advantages of using the survey method (e.g., less costly, time-saving, easy assessment of risk factors, and no loss to follow-up; Dillman, 1991; Levin, 2006; Sekaran & Bougie, 2013).

The survey instrument was modified from a pool of valid and reliable measurement tools previously tested and researched (Creswell, 2014; Sekaran & Bougie, 2013). All the measurement tools that contributed to the survey used in this study have already been described above. The researcher gained formal permission to use all or parts of these instruments (Appendix F). From these sources, the survey drew 34 items to better our understanding of the mediating effects of work engagement on turnover intention. The survey instrument used in this study also included eight questions related to the demographic characteristics of the respondents (namely, gender, age, level of education, marital status, years of experience, position title, nationality, and salary).

Creswell (2014) suggests that employing a four-phases survey administration procedure can lead to higher response rates. Creswell’s steps were all followed in the present study. The first phase involved sending an initial e-mail to serve as advance notification of the survey to all of the nurses working at the RCMC in Yanbu. The advance notification e-mail included the cover letter, specific instructions, a statement of confidentiality, and a hyperlink to the survey
questionnaire. Then, after two weeks, the participants received a reminder about the deadline for completing the survey, along with a note of appreciation. Lastly, selected participants who had not responded were followed up on. Dillman (1991) suggested that researchers can enhance the rate of response by selecting 10 to 20% of the non-respondents and contact them personally by phone to encourage their cooperation. In this step, the researcher distributed five tablets in different nursing departments to enhance participant response rate. As a result, the number of respondents increased from 105 to 320. The data were collected and analyzed once an acceptable rate of response was reached. Based on the Krejcie and Morgan table mentioned previously, the minimal number of required responses was 196.

The researcher electronically distributed a total of 498 surveys to nurses. The sample size for this study exceeded the required minimum because 320 respondents completed the survey. The response rate for the study survey was 64% (n = 320). There were no missing data because the researcher selected the Qualtrics option that does not allow the submission of the survey unless all items are completed. The total number of individuals who completed the survey was 320.

**Data Analysis Plan**

After the data were collected, the data were downloaded into the IBM Statistical Package for the Social Sciences version 23 (SPSS-23), and the responses were coded to examine the relationships between the variables. Correlation and regression were used to find out if there were relationships between the job resource dimensions and turnover intention, along with the potential mediating effect work engagement. Additionally, a simple mediation analysis with SPSS's PROCESS macro model 4 was used to find the influence of job resources on turnover intention through work engagement (Figure 3.1).
Different types of correlation and regression analysis were employed to analyze the relationships between the research variables. The data were analyzed in a series of four steps. Correlation and multiple regression analysis required accepting the assumption of linear relationships among different variables. In order to have valid and reliable study results, the researcher checked the assumptions of reliability, normality, linearity, and homoscedasticity before conducting the statistical analysis to address the research questions. Some of the assumptions can be evaluated by plotting residual values on a histogram to get a general idea of the shape of the distribution. Several tests were conducted in order to ensure valid and reliable study results. First, the researcher looked for outliers in the relationships between the independent and dependent variables displayed as box plots because the correlation between variables should be described as a linear relationship. Second, the researcher tested the normality of the interval/ratio data to assess whether the analysis is based on data with acceptably normal distributions. The normal probability plot was used to evaluate normality. Moreover, a histogram of residuals was used to determine whether the residual data were normally distributed. Homoscedasticity was the last assumption to be checked.

In order to investigate the relationships among the research variables, the researcher developed four main research questions as detailed in Chapter 1. Based on the conceptual framework of the study, three types of relationships were tested: (a) relationships between the independent variables (job resources) and the mediation variable (work engagement); (b) relationship between the mediation variable (work engagement) and the dependent variable (employees’ turnover intention); and (c) relationships between the independent variables (job resources) and employees’ turnover intention (dependent variable) with work engagement mediating the relationship between them. In order to answer the research questions, descriptive
statistics, multiple regressions, and correlations were the main analytical tools used to examine the strength of the relationships between the independent variables and the dependent variable, along with the effect of the mediating variable.

Another aspect of the study was to analyze the demographic variables (i.e., gender, age, level of education, marital status, years of experience, position title, nationality, and salary) in terms of absolute and relative frequencies. These data provided an overall profile of the sample group. Such simple tabulations make it possible to see if there are any imbalances in the composition of the sample compared with the target population, for example, with respect to the representation of individuals in different job positions. In those instances in which variables are given as interval data, measures of central tendency are also presented. For those characteristics for which data are available, comparisons of the sample data with that for the target population are presented.

The analysis of the demographic information from the respondents indicated that the majority of respondents (252; 78.8%) were female, and 68 (21.3%) were male. The majority of the respondents (292; 92%) fell in the 30–39 years of age category. The average age of the participant was 35.7 years. The majority of the respondents (209; 68.3%) were married. The majority of the respondents (280; 87.5%) were non-Saudi. Most of the respondents (231; 72.2%) had a Bachelor of Science degree; and 156 (48.8%) of the participants fell into the 1–5 years of work experience category. The majority (77.5%) of the participants held the position of a registered nurse.

The relationship of each of the demographic variables (i.e., gender, age, level of education, marital status, years of experience, position title, nationality, and salary) and turnover
intention was examined, as well as the influence of the demographic characteristics on the three work engagement dimensions (vigor, dedication, and absorption).

Another stage of the research involved the use of Pearson’s correlation coefficient, $r$, to measure the strength and direction of the linear relationships among the variables in order to address the first, second, and third research questions.

To address the fourth research question, the researcher used a simple mediation analysis with SPSS's PROCESS macro model 4 to examine the strength of the relationships between job resources and turnover intention, along with the potential mediating effect of work engagement. The researcher evaluated the accuracy of the mediation effect using the most traditional model, the causal steps approach, to test for mediation as described by Baron and Kenny (1986). This model (Figure 3.1) helped to examine the direct, indirect, and total effect pathways of job resources on turnover intention through work engagement as an intermediary. Three sets of regression equations comprise the basic steps of the mediation analysis: Job Resources ($X$) $\rightarrow$ Turnover Intention ($Y$); Job resources ($X$) $\rightarrow$ Work Engagement ($M$); and Job Resources ($X$) + Work Engagement ($M$) $\rightarrow$ Turnover Intention ($Y$).

For the mediation analysis, the researcher combined the subscale variables. The three engagement subscales were combined into a single variable, “work engagement total.” Similarly, the four job resources subscales of autonomy, performance feedback, supervisory support, and learning opportunities were computed to create a single new job resources variable, “job resources total.”

In preparation for the analysis of the collected data from the respondents, the researcher examined whether the data met the assumptions of a multiple regression, and also determined whether mediation was statistically appropriate in terms of linearity and normality. A scatterplot
enabled the evaluation of the linearity of the relationship between work engagement as a mediator variable between job resources and turnover intention. The scatterplot indicated that the regression line was fairly linear since the Loess curve centers close to zero along the entire X-axis. Also, a P-P plot was created to evaluate the normality of the data distributions, and the plot indicated that the data met the assumptions required for the application of multiple regression techniques.

While it was determined that the data respected the assumptions required for the application of multiple regression procedures, the next section highlights the steps and procedures used in the simple mediation analysis. Baron and Kenny (1986) proposed four steps to establishing mediation. Several regression analyses were conducted to examine the significance of the coefficients at each step of Baron and Kenny’s model; the steps taken in these analyses are described below.

In the first step, the researcher should establish that a significant relationship exists between the independent variable (job resources) and the dependent variable (employees’ turnover intention). Therefore, the researcher regressed turnover intention with the independent variable (job resources) to confirm whether or not job resources were a significant predictor of turnover intention.

The second step of Baron and Kenny’s procedure is to establish that there is a significant correlation of the independent variable (job resources) with the mediator variable (work engagement). In the present case, the three dimensions of work engagement (vigor, dedication, and absorption) were combined into a single dependent variable. Thus, the researcher regressed the mediator variable (work engagement) with the independent variable (job resources) to confirm whether or not job resources are a significant predictor of work engagement. According
to Baron and Kenny (1986), if, at this stage of the analysis, work engagement is not correlated with job resources, then it cannot possibly mediate the relationship between job resources and turnover intention. In other words, if the second condition isn’t met, then the researcher can conclude that work engagement does not mediate the relationship between job resources and employees’ turnover intention.

The third step in the procedure is to regress the dependent variable (employees’ turnover intention) with both the mediator variable (work engagement) and the independent variable (job resources) to confirm that the mediator (work engagement) is a significant predictor of the dependent variable, turnover intention, and that the significance of the independent variable demonstrated in the first step is now greatly reduced. Establishing the influence of the mediating variable requires controlling for the effects of the independent variable (job resources) on the dependent variable (employees’ turnover intention). Lastly, then, the relationship between the independent variable (job resources) and the dependent variable (turnover intention) must be controlled. According to Baron and Kenny (1986), if any of these relationships are not statistically significant ($p > 0.05$), then mediation is not possible or likely. Conversely, if all path variables represent statistically significant relationships ($p < 0.05$) from steps 1 through 3, one can proceed to step four to determine the extent of the mediation, which is typically described as either partial mediation or complete mediation. Baron and Kenny (1986) say that full mediation occurs when the mediation variable (work engagement in this study) drops the relationship between the independent variable (job resources) and the dependent variable (turnover intention) to zero pathway $c$. They also explain that partial mediation occurs when the mediating variable (work engagement) accounts for some, but not all, of the relationship between the independent variable (job resources) and the dependent variable (turnover intention).
Chapter Summary

The purpose of this chapter is to provide an overview of how the study was conducted to answer the research questions. The population and target population were defined, and the steps required to obtain an adequate sample from the target population outlined. The variables to be studied were supplied by the research questions, and the methods for obtaining measurements of each the variables were discussed. Items from existing instruments proven valid and reliable for measuring these variables were combined in a new survey instrument specially designed for this study. A timeline for testing and refining the survey instrument was presented, along with a procedure for ensuring a faithful translation to an Arabic-language version. This chapter also provides a plan for a quantitative analysis using multiple regression techniques in order to evaluate the relationships among the variables posited in the research questions. Table 3-4 summarizes all the statistical methods used in the data analysis to address each of the research questions. The results of the data analysis are presented in the next chapter.

Table 3-4
Statistical Analysis Procedure Used in the Study

<table>
<thead>
<tr>
<th>Research question</th>
<th>Key variable</th>
<th>Scale</th>
<th>Statistical technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. To what extent do the demographic characteristics of health care professionals (i.e., gender, age, level of education, marital status,</td>
<td>Dependent: Turnover Intention (Y1), Work Engagement (Y2), Vigor (Y3), Dedication (Y4), and Absorption (Y5)</td>
<td>Interval and Nominal</td>
<td>Pearson correlation</td>
</tr>
<tr>
<td>Research question</td>
<td>Key variable</td>
<td>Scale</td>
<td>Statistical technique</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>years of work experience, job category, nationality, and salary) influence turnover intention and three dimensions of work engagement (vigor, dedication, and absorption)?</td>
<td>Gender (X1), Age (X2), Level of education (X3), Marital status (X4), Experience (X5), Job position (X6), Salary (X7), and Nationality (X8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2. To what extent do four types of job resources (performance feedback, supervisor support, job autonomy, and learning opportunities) influence the three dimensions of work engagement (vigor, dedication, and absorption) and turnover intention among nurses working in the health services program at the Royal Commission in Yanbu, KSA?</td>
<td>Dependent: Turnover Intention (Y1), Work Engagement (Y2), Vigor (Y3), Dedication (Y4), and Absorption (Y5)</td>
<td>Interval</td>
<td>Pearson correlation</td>
</tr>
<tr>
<td>Q3. To what extent do the three dimensions of work engagement influence employee turnover intention among nursing professionals working in the health services program at the Royal Commission in Yanbu, KSA?</td>
<td>Dependent: Turnover Intention (Y1)</td>
<td>Interval</td>
<td>Pearson correlation</td>
</tr>
<tr>
<td></td>
<td>Independent: Work Engagement (X1), Vigor (X2), Dedication (X3), and Absorption (X4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research question</td>
<td>Key variable</td>
<td>Scale</td>
<td>Statistical technique</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>----------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Royal Commission in Yanbu, KSA?</td>
<td>absorption (X4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q4. To what extent does work engagement mediate the relationship</td>
<td>First relationship: Dependent:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>between job resources and employee turnover intention among nursing</td>
<td>Turnover Intention (Y)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>professionals working in the health services program at the Royal</td>
<td>Independent: Job Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commission in Yanbu, KSA?</td>
<td>Second relationship:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dependent: WE9-combined</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Independent: Job Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interval</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mutable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regression</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(X1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(X1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(X5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Third relationship: Dependent:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Turnover Intention (Y)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Independent: Job Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(X1), and WE9-combined</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chapter 4
RESULTS

This chapter reports the results of the quantitative data analysis. The primary intent of this quantitative study was to examine the relationships between job resources and employees’ turnover intention while simultaneously examining work engagement as a mediating variable. The participants were nurses employed by the RCMC, Yanbu, KSA. The data collected from the online survey were analyzed using SPSS to examine the relationships between the independent, mediator, and dependent variables.

The first section in this chapter provides descriptive statistics for the study’s participants in terms of demographic characteristics (i.e., gender, age, level of education, marital status, years of work experience, position title, nationality, and salary). It also addresses the results of the reliability, linearity, and normality tests for the (interval/ratio) measurement data for all the key variables.

The second section of this chapter interprets the results as they relate to Research Question 1 (RQ1) concerning the relationships between demographic variables and work engagement and turnover intention. This section includes both descriptive and inferential statistics.

The third section of this chapter addresses the results that relate to Research Question 2 (RQ2). The analysis examined the extent to which four types of job resources (performance feedback, supervisory support, job autonomy, and learning opportunities) influenced the three dimensions of work engagement (vigor, dedication, and absorption) measured, as well as turnover intention among nurses working in the RCMC in Yanbu, KSA. Pearson's correlation coefficient ($r$) was used to measure the degree of association between the variables. Simple
bivariate regression models were used to show how each dependent variable was influenced by each independent variable.

The fourth section uses both descriptive statistics and the correlations between turnover intention and the three dimensions of work engagement in order to address Research Question 3 (RQ3).

The last section of this chapter tackles Research Question 4 (RQ4) by investigating to what degree the work engagement variable mediates the relationships between job resources and turnover intention. To examine the strength of the relationships between job resources and turnover intention, along with the effect of work engagement as a mediating variable, a multiple regression model was used. According to Baron and Kenny (1986), multiple regression can be used to measure the influence of a mediating variable on the relationship between the independent variables and the dependent variable.

Research Questions

This investigation of the relationships among the variables of interest for this sample of nursing personnel in the Saudi Arabian healthcare system aims to provide information to answer the following four research questions:

RQ1. To what extent do the demographic characteristics of nurses (i.e., gender, age, level of education, marital status, years of work experience, job category, nationality, and salary) influence turnover intention and three work engagement dimensions (vigor, dedication, and absorption)?

RQ2. To what extent do the four job resource dimensions (performance feedback, supervisory support, job autonomy, and learning opportunities) influence the work engagement dimensions (vigor, dedication, and absorption) and turnover
intention among nurses working in the health services program at the RCMC in Yanbu, KSA?

RQ3. To what extent do the dimensions of work engagement influence employee turnover intention among nurses working in the health services program at the RCMC in Yanbu, KSA?

RQ4. To what extent does work engagement mediate the relationship between the various job resources and employee turnover intention among nurses working in the health services program at the RCMC in Yanbu, KSA?

Demographic Profiles of the Respondents

The researcher electronically distributed a total of 498 surveys to nurses employed by the RCMC at Yanbu, KSA, with the cooperation of the Departments of Human Resources and Information Technology at the Medical Center. To obtain results with a 95% confidence level and a 5% confidence interval, the Krejcie and Morgan table calculates a minimum sample size of 196. As summarized in Table 1 of Chapter Three, the response rate for the survey was 64% (n=320), so the number of questionnaires used in the analysis exceeded the recommended minimum. There were no missing data due to the application of the Qualtrics option that does not allow the submission of a survey unless all items are completed.

The analysis of the demographic information for the sample of respondents is summarized in Table 4-1. As expected, the majority of respondents were female (n = 252; 78.8%), while 68 (21.3%) were male. With respect to age, the majority (n=292; 91.2%) of respondents’ ages fell in the 30−39 years of age category. The average age of the respondents was 35.7; the youngest participant was 25 years old, and the oldest was 70. Among the 320 participants, 209 (68.3%) were married, 96 (30%) were single, 8 (2.5%) were separated, and 7
(2.2%) were widowed. The majority of respondents (280; 87.5%) were non-Saudi, and 40 (12.5%) were Saudi.

**Table 4-1**

*Frequency Distribution for Study Demographic Variables (n = 320).*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Type</th>
<th>Number of Respondents</th>
<th>%</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>68</td>
<td>21.3</td>
<td>21.3</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>252</td>
<td>78.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Age (years)</td>
<td>29 or less</td>
<td>13</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td>30 – 39</td>
<td>292</td>
<td>91.2</td>
<td>95.3</td>
</tr>
<tr>
<td></td>
<td>40 – 49</td>
<td>10</td>
<td>3.1</td>
<td>98.4</td>
</tr>
<tr>
<td></td>
<td>50 – 59</td>
<td>4</td>
<td>1.3</td>
<td>99.7</td>
</tr>
<tr>
<td></td>
<td>60 or more</td>
<td>1</td>
<td>0.3</td>
<td>100</td>
</tr>
<tr>
<td>Level of Education</td>
<td>Diploma (2 years)</td>
<td>9</td>
<td>2.8</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>Diploma (3 years)</td>
<td>75</td>
<td>23.4</td>
<td>26.3</td>
</tr>
<tr>
<td></td>
<td>Bachelor's degree</td>
<td>231</td>
<td>72.2</td>
<td>98.4</td>
</tr>
<tr>
<td></td>
<td>Master's degree</td>
<td>4</td>
<td>1.3</td>
<td>99.7</td>
</tr>
<tr>
<td></td>
<td>Ph.D. degree</td>
<td>1</td>
<td>.3</td>
<td>100</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Never married</td>
<td>96</td>
<td>30.0</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>Divorced</td>
<td>8</td>
<td>2.5</td>
<td>32.5</td>
</tr>
<tr>
<td></td>
<td>Widowed</td>
<td>7</td>
<td>2.2</td>
<td>34.7</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>209</td>
<td>65.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Years of</td>
<td>1 – 5</td>
<td>156</td>
<td>48.8</td>
<td>48.8</td>
</tr>
</tbody>
</table>
Table 4-1

*Frequency Distribution for Study Demographic Variables (n = 320).*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Type</th>
<th>Number of Respondents</th>
<th>%</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience</td>
<td>6 – 11</td>
<td>121</td>
<td>37.8</td>
<td>86.6</td>
</tr>
<tr>
<td></td>
<td>12 – 16</td>
<td>22</td>
<td>6.9</td>
<td>93.4</td>
</tr>
<tr>
<td></td>
<td>More than 16</td>
<td>21</td>
<td>6.6</td>
<td>100</td>
</tr>
<tr>
<td>Nursing Director</td>
<td></td>
<td>3</td>
<td>.9</td>
<td>.9</td>
</tr>
<tr>
<td>Nursing Manager</td>
<td></td>
<td>13</td>
<td>4.1</td>
<td>5.0</td>
</tr>
<tr>
<td>Nursing Supervisor</td>
<td></td>
<td>3</td>
<td>.9</td>
<td>5.9</td>
</tr>
<tr>
<td>Position Title</td>
<td>Registered Nurse</td>
<td>248</td>
<td>77.5</td>
<td>83.4</td>
</tr>
<tr>
<td>Nursing Technician</td>
<td></td>
<td>28</td>
<td>8.8</td>
<td>92.2</td>
</tr>
<tr>
<td>Nursing - Admin Nursing – Trainee</td>
<td></td>
<td>25</td>
<td>7.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Nationality</td>
<td>Saudi</td>
<td>40</td>
<td>12.5</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>Non – Saudi</td>
<td>280</td>
<td>87.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Monthly</td>
<td>Less than 5000 SR</td>
<td>134</td>
<td>41.9</td>
<td>41.9</td>
</tr>
<tr>
<td>Salary (Saudi Riyal)</td>
<td>5001~ 10000 SR</td>
<td>155</td>
<td>48.4</td>
<td>90.3</td>
</tr>
<tr>
<td></td>
<td>More than 10001 SR</td>
<td>31</td>
<td>9.7</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Concerning the level of education, 231 (72.2%) of the respondents had a Bachelor of Science degree, while 23 respondents (23.4%) had a three-year diploma, nine (2.8%) had a two-year diploma from an institute, and four (1.3%) had a Master's degree. With respect to respondents’ years of work experience, 156 (48.8%) of the respondents fell into the 1–5 years
category, 121 (37.8%) fell into the 6–11 years of experience category, 22 (6.9%) fell into the 12–16 years of experience category, and just 21 (6.6%) fell into the more than 16 years of experience category. The average years of experience among all the respondents were 7.9 years. Surprisingly, the respondent with the most experience recorded 51 years.

Among the job position categories, the majority (248; 77.5%) were registered nurses, a proportion that is common in healthcare facilities. Twenty-eight 28 (8.8%) classified themselves as nursing technicians, 25 (7.8%) of them were trainees in nursing administration, 13 (4.1%) worked as nursing managers, three (less than 1%) as nursing directors, and three (less than 1%) as nursing supervisors. One hundred and fifty-five respondents (48.4%) represented the salary category with a monthly salary between 5001–10000 Saudi Riyal (SR), 134 (41.9%) with a monthly salary of less than 5000 SR, and the minority (31; 9.7%) of respondents received more than 10000 SR every month.

**Reliability, Linearity, and Normality Testing**

To have valid and reliable study results, the researcher checked the assumptions of reliability, normality, linearity, and homoscedasticity before conducting the statistical analysis (Huck, 2012). The tests described below provide information to assess the normality of the data distributions for interval-scale measurement variables, and to assess the internal consistency of summated Likert-scale scores.

**Testing for reliability.**

To determine the internal consistency for summated scores obtained from responses to Likert-type survey instrument items, Cronbach’s α was used to assess the scales’ reliability. As reported in Chapter Three, all the survey instruments had previously been used in studies in different countries and industries, and all of the scores generated from the use of the instruments
reached an acceptable level of reliability. Previous studies showed that Cronbach’s $\alpha$ values for all instruments ranged from $\alpha = 0.70$ to 0.92. In the present study, the results of tests for internal consistency for all survey instruments produced Cronbach’s $\alpha$ values that ranged from 0.71 to 0.88, indicating an acceptable level of reliability. However, the second item of the autonomy scale was excluded from the instrument to improve the Cronbach’s $\alpha$ results from 0.43 to 0.71. Therefore, the total Job Resources Scale in this study includes 13 items rather than the 14 items in the original Job Resources Scale. Table 4.2 presents basic descriptive statistics (i.e., mean and standard deviation) and Cronbach’s $\alpha$ for all survey instrument scales.

Table 4-2

<table>
<thead>
<tr>
<th>Variable</th>
<th># of Items</th>
<th>M</th>
<th>SD</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Resources</td>
<td>13</td>
<td>4.7</td>
<td>15.4</td>
<td>.88</td>
</tr>
<tr>
<td>Autonomy</td>
<td>2</td>
<td>5.2</td>
<td>2.8</td>
<td>.71</td>
</tr>
<tr>
<td>Performance Feedback</td>
<td>3</td>
<td>5</td>
<td>3.6</td>
<td>.71</td>
</tr>
<tr>
<td>Supervisory Support</td>
<td>4</td>
<td>2.8</td>
<td>3.1</td>
<td>.82</td>
</tr>
<tr>
<td>Learning Opportunities</td>
<td>4</td>
<td>3.3</td>
<td>2.8</td>
<td>.88</td>
</tr>
<tr>
<td>Work Engagement</td>
<td>9</td>
<td>5.76</td>
<td>8.5</td>
<td>.85</td>
</tr>
<tr>
<td>Turnover Intention</td>
<td>3</td>
<td>4.2</td>
<td>5.1</td>
<td>.86</td>
</tr>
</tbody>
</table>

**Testing for normality.**

To make valid inferences from regression results, certain statistical assumptions need to be met. First, a test for the normality of the interval/ratio data determines whether the analysis is based on data with acceptably normal distributions. For the survey data obtained, the overall
regression model linearity was assessed to determine if a data set is well-modeled by a normal distribution. A normal probability plot was used for evaluating normality, and the residuals were found to be normally distributed (Figure 4-1). The points plotted on the P-P plot fell approximately on a straight line. The regression residuals appear fairly normally distributed since the Loess curve centers close to zero along the entire X-axis. These results indicate that there were acceptable levels of linearity for the interval/ratio variables used in the regression analyses.

Figure 4-1. Normal P.P Plot Regression Standardized Residual

The histogram of residuals associated with the dependent variable, turnover intention, shows that the residual data points are normally distributed (Figure 4-2).

Figure 4-2. Histogram of Residual Distribution
Homoscedasticity Testing

The next assumption to check was homoscedasticity. Levene's test was used to assess the balance of variation for a calculated variable. The result shows that $\alpha = 1$, which means that there is no significant difference in the equality of variance through the various conditions of the study. Thus, the test for homoscedasticity was satisfied (Table 4-3).

Table 4-3

Levene's Test of Equality of Error Variances

<table>
<thead>
<tr>
<th></th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>.093</td>
<td>312</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Dependent Variable = Turnover Intention _total

Bivariate Correlations

The collected data were analyzed using SPSS software to examine the relationships between the demographic characteristics (i.e., gender, age, level of education, marital status, years of experience, position title, nationality, and salary) of the respondents and turnover intention. Also investigated were the correlations between the demographic characteristics and the three dimensions of work engagement (vigor, dedication, and absorption). Pearson’s bivariate correlation coefficients were generated to provide insights to answer RQ1 and RQ2.

Demographic characteristics and turnover intention.

The first set of relationships examined were those between the demographic characteristics (i.e., gender, age, level of education, marital status, years of work experience, position title, nationality, and salary) and turnover intention. As shown in Table 4-4, the demographic variables of age and salary are of particular interest with respect to their apparent influence on the dependent variable, turnover intention. The results indicate that there is a
significant negative, though relatively low, the correlation between age and turnover intention \( (r = 0.139; p \leq 0.013) \). This result means that, for every one unit increase in age, turnover intention decreases by about 0.14. Another significant relationship was found between salary and turnover intention \( (r = -0.145; p \leq 0.01) \), indicating that, for every one unit increase in salary, turnover intention decreased by about 0.15.

**Table 4-4**

**Bivariate Correlation between demographic characteristics and the three dimensions of work engagement \((n = 320)\)**

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.043</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>.161**</td>
<td>-0.02</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td>-0.062</td>
<td>.110*</td>
<td>.224**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>0.085</td>
<td>0.054</td>
<td>.192**</td>
<td>.344**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position</td>
<td>.146**</td>
<td>-0.043</td>
<td>.150**</td>
<td>0.003</td>
<td>-0.034</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nationality</td>
<td>.427**</td>
<td>0.052</td>
<td>0.102</td>
<td>-0.02</td>
<td>.114*</td>
<td>.197**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary</td>
<td>.213**</td>
<td>0.012</td>
<td>0.009</td>
<td>.263**</td>
<td>.279**</td>
<td>-0.02</td>
<td>.528**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turnover Intention</td>
<td>0.042</td>
<td>-0.139*</td>
<td>0.008</td>
<td>-0.048</td>
<td>-0.076</td>
<td>-0.011</td>
<td>0.023</td>
<td>-0.145**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Eng.</td>
<td>0.067</td>
<td>0.089</td>
<td>0.046</td>
<td>-0.028</td>
<td>0.06</td>
<td>0.035</td>
<td>0.063</td>
<td>-0.089</td>
<td>.230**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vigor</td>
<td>0.035</td>
<td>0.02</td>
<td>0.01</td>
<td>-0.092</td>
<td>-0.007</td>
<td>0.085</td>
<td>-0.01</td>
<td>-0.093</td>
<td>-0.123*</td>
<td>.858**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dedication</td>
<td>0.085</td>
<td>.136*</td>
<td>0.079</td>
<td>0.014</td>
<td>0.066</td>
<td>-0.033</td>
<td>.128*</td>
<td>-0.056</td>
<td>.313**</td>
<td>.881**</td>
<td>.652**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Absorbing</td>
<td>0.056</td>
<td>0.082</td>
<td>-0.034</td>
<td>0.014</td>
<td>0.101</td>
<td>0.031</td>
<td>0.052</td>
<td>-0.077</td>
<td>-0.165**</td>
<td>.833**</td>
<td>.527**</td>
<td>.632**</td>
<td>1</td>
</tr>
</tbody>
</table>

**Demographic characteristics and work engagement.**

The second part of RQ1 required an examination of the relationships between the demographic characteristics and the three dimensions of work engagement (vigor, dedication, and absorption). The results of bivariate regression revealed significant positive, but relatively low, correlations between Nationality and Dedication \( (r = 0.128; p \leq 0.05) \) and between Age and
Dedication \((r = 0.136; p = 0.015)\). The data in Table 4-4 reveal no other significant relationships between any other demographic variables and any of the three dimensions of work engagement.

**Job resources and work engagement.**

RQ2 focuses on the relationships between the three dimensions of work engagement and the four job resources variables: autonomy, performance feedback, supervisory support, and learning opportunities. The second part of this question focuses on the relationships between the job resources variables and turnover intention. Table 4-5 provides the summary statistics (mean and standard deviation) for the work engagement and job resources variables. Table 4-6 provides summary statistics—mean, standard deviation, and minimum and maximum values—for each of the relevant items on the survey questionnaire. To address the first part of RQ2 required an examination of the relationships between the types of job resources and the dimensions of work engagement (vigor, dedication, and absorption).

Again, Pearson’s \(r\) values were obtained to describe the relationships between the four types of job resources and the three dimensions of work engagement, as well as for those between the dimensions of work engagement and job resources variables and turnover intention. These results are summarized in Table 4-7 where it can be seen that each one of the four types of job resources was positively and significantly \((p \leq 0.01)\) correlated with each of the three dimensions of work engagement.

The strongest positive relationships between a dimension of work engagement and type of job resource were those between Absorption and Learning Opportunities (moderate correlation; \(r = 0.424; p < .001\)) and between Dedication and Learning Opportunities \((r = 0.417; p < 0.001)\). The weakest relationships between a dimension of work engagement and type of job
resource were between Vigor and Supervisory Support ($r = 0.24; p < 0.001$), and between Vigor and Autonomy ($r = 0.28; p < 0.001$; Table 4-8).

**Table 4-5**

*Descriptive statistics for turnover intention, the four dimensions of job resources, and the three dimensions of work engagement (n = 320)*

<table>
<thead>
<tr>
<th>Scale dimension</th>
<th># Items</th>
<th>M</th>
<th>SD</th>
<th>Min value</th>
<th>Max value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover Intention</td>
<td>3</td>
<td>4.20</td>
<td>1.69</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Job Resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>3</td>
<td>5.24</td>
<td>1.38</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Performance feedback</td>
<td>3</td>
<td>5.00</td>
<td>1.21</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Supervisory support</td>
<td>4</td>
<td>2.84</td>
<td>0.77</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Learning opportunities</td>
<td>4</td>
<td>3.25</td>
<td>0.70</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Total scale</td>
<td>14</td>
<td>4.08</td>
<td>.73</td>
<td>1</td>
<td>5.5</td>
</tr>
<tr>
<td>Work Engagement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vigor</td>
<td>3</td>
<td>5.49</td>
<td>1.52</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Dedication</td>
<td>3</td>
<td>6.11</td>
<td>1.21</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Absorption</td>
<td>3</td>
<td>5.69</td>
<td>1.39</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Total scale</td>
<td>9</td>
<td>5.76</td>
<td>0.94</td>
<td>'1</td>
<td>7</td>
</tr>
</tbody>
</table>
### Table 4-6

*Descriptive Statistics for Independent, mediator, and dependents variables (n = 320)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Statement</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Autonomy</strong></td>
<td>1. My job gives me complete responsibility for deciding how and when the work is done.</td>
<td>5.40</td>
<td>1.57</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>2. My job denies me any chance to use my personal initiative or judgment in carrying out the work.</td>
<td>3.94</td>
<td>1.84</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>3. My job gives me a considerable opportunity for independence and freedom in how I do the work.</td>
<td>5.09</td>
<td>1.56</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td><strong>Performance feedback</strong></td>
<td>1. My job is set up so that I get constant “feedback” about how well I am doing.</td>
<td>5.08</td>
<td>1.45</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>2. Just doing the work required by the job provides many chances for me to figure out how well I am doing.</td>
<td>5.22</td>
<td>1.41</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>3. My job itself provides very few clues about whether or not I am performing well</td>
<td>4.68</td>
<td>1.68</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td><strong>Learning opportunities</strong></td>
<td>1. Do you learn new things in your work?</td>
<td>3.35</td>
<td>0.76</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>2. Does your job offer you opportunities for personal growth and development?</td>
<td>3.22</td>
<td>0.83</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>3. Does your work give you the feeling that</td>
<td>3.27</td>
<td>0.82</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Variables</td>
<td>Statement</td>
<td>M</td>
<td>SD</td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>you can achieve something?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Does your work offer you the possibility of independent thought and action?</td>
<td>3.17</td>
<td>0.85</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Supervisor Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>My supervisor/manager is concerned about the welfare of those under them.</td>
<td>2.98</td>
<td>0.90</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>2.</td>
<td>My supervisor/manager pays attention to what I am saying.</td>
<td>3.00</td>
<td>0.90</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td>I am exposed to hostility from my supervisor/manager.</td>
<td>2.33</td>
<td>1.09</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>4.</td>
<td>My supervisor/manager is helpful in getting the job done.</td>
<td>3.06</td>
<td>0.90</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Turnover Intention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>I sometimes think about changing my job.</td>
<td>4.40</td>
<td>1.87</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>2.</td>
<td>I sometimes think about seeking work outside this organization.</td>
<td>4.40</td>
<td>1.91</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>3.</td>
<td>Next year, I plan to change jobs.</td>
<td>3.79</td>
<td>1.96</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Work Engagement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>At my work, I feel bursting with energy.</td>
<td>5.16</td>
<td>1.66</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>2.</td>
<td>At my job, I feel strong and vigorous.</td>
<td>5.64</td>
<td>1.46</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>3.</td>
<td>When I get up in the morning, I feel like going to work</td>
<td>5.66</td>
<td>1.46</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>
Table 4-6

Descriptive Statistics for Independent, mediator, and dependents variables (n = 320)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Statement</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>I am enthusiastic about my job.</td>
<td>5.95</td>
<td>1.28</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>5.</td>
<td>My job inspires me.</td>
<td>5.95</td>
<td>1.37</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>6.</td>
<td>I am proud of the work that I do.</td>
<td>6.44</td>
<td>0.99</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>7.</td>
<td>I feel happy when I am working intensely.</td>
<td>5.88</td>
<td>1.30</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>8.</td>
<td>I am immersed in my job.</td>
<td>5.88</td>
<td>1.28</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>9.</td>
<td>I get carried away when I’m working.</td>
<td>5.30</td>
<td>1.58</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>

Note: Autonomy, performance feedback, and turnover intention response scale for Likert response scale items: 1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = neither disagree nor agree; 5 = moderately agree; 6 = agree; and 7 = strongly agree. Learning opportunities and Supervisor support response scale for Likert response scale items: 1 = Never; 2 = Some; 3 = Often; and 4 = Always. Work Engagement response scale for Likert response scale items: 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. M = mean; SD = standard deviation; Min = Minimum; and Max = Maximum.

Table 4-7

Pearson Correlation Values between Work Engagement and Job Resources (n = 320)

<table>
<thead>
<tr>
<th>Variables</th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>X4</th>
<th>X5</th>
<th>X6</th>
<th>X7</th>
<th>X8</th>
<th>X9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vigor</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dedication</td>
<td></td>
<td>.652**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absorption</td>
<td></td>
<td>.527**</td>
<td>.632**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Engagement</td>
<td></td>
<td>.858**</td>
<td>.881**</td>
<td>.833**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td></td>
<td>.283**</td>
<td>.283**</td>
<td>.369**</td>
<td>.363**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Opportunities</td>
<td></td>
<td>.336**</td>
<td>.417**</td>
<td>.424**</td>
<td>.455**</td>
<td>.496**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisory Support</td>
<td></td>
<td>.237**</td>
<td>.310**</td>
<td>.378**</td>
<td>.357**</td>
<td>.392**</td>
<td>.602**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Performance Feedback</td>
<td></td>
<td>.317**</td>
<td>.360**</td>
<td>.318**</td>
<td>.386**</td>
<td>.553**</td>
<td>.485**</td>
<td>.520**</td>
<td>1</td>
</tr>
<tr>
<td>Job resources</td>
<td></td>
<td>.367**</td>
<td>.418**</td>
<td>.456**</td>
<td>.481**</td>
<td>.831**</td>
<td>.751**</td>
<td>.728**</td>
<td>.836**</td>
</tr>
</tbody>
</table>

Note: ; **significant at the 0.01 level; * significant at the 0.05 level.

Job resources and turnover intention.

The second part of RQ2 required an examination of the relationships between the four types of job resources and turnover intention. As summarized in Table 4-8, turnover intention
was negatively and significantly \((p \leq 0.01)\) correlated with all four kinds of job resources. The strongest negative relationships with turnover intention were with Learning Opportunities \((r = -0.276)\) and Supervisory Support \((r = -0.247)\). The weakest relationship of turnover intention with a job resource variable was with Performance Feedback \((r = -0.160)\).

**Table 4-8**
*Pearson Correlation Values between Turnover Intention and Job Resources Dimension (\(n = 320\))*

<table>
<thead>
<tr>
<th>Variables</th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>X4</th>
<th>X5</th>
<th>X6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover Intention</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job resources total</td>
<td>-.253**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>-.177**</td>
<td>831**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Opportunities</td>
<td>-.276**</td>
<td>.751**</td>
<td>.496**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervisory Support</td>
<td>-.247**</td>
<td>.728**</td>
<td>.392**</td>
<td>.602**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Performance Feedback</td>
<td>-.160**</td>
<td>.836**</td>
<td>.553**</td>
<td>.485**</td>
<td>.520**</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note.* **Significant at the 0.01 level; * significant at the 0.05 level.

**Work engagement and turnover intention.**

RQ3 asks whether any of the dimensions of work engagement (vigor, dedication, and absorption) influences the turnover intention for nurses in the Yanbu Health Services Program. Considering the individual components of work engagement, the results show that all the dimensions of work engagement were negatively correlated with turnover intention. As presented in Table 4-9, the strongest relationship between turnover intention and any dimension of work engagement was found between turnover intention and Dedication \((r = -0.313**; p \leq \)
0.001). Also, there were weak, negative correlations between turnover intention and Vigor ($r = -0.123; p < 0.001$) and between turnover intention and Absorption ($r = -0.165**; p \leq 0.001$).

Table 4-9

_Bivariante Correlation for Work Engagement Dimensions and Turnover Intention (n = 320)_

<table>
<thead>
<tr>
<th>Variable</th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>X4</th>
<th>X5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover Intention</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work Engagement</td>
<td></td>
<td>-0.230**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vigor</td>
<td>-0.123*</td>
<td>0.858**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dedication</td>
<td>-0.313**</td>
<td>0.881**</td>
<td>0.652**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Absorption</td>
<td>-0.165**</td>
<td>0.833**</td>
<td>0.527**</td>
<td>0.632**</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note. **significant at the 0.01 level; * significant at the 0.05 level.*

The Mediating Influence of Work Engagement

The last research question (RQ4) assesses whether or not work engagement mediates the relationship between job resources and turnover intention. To examine the strength of the relationships between the job resource dimensions and turnover intention, along with the potential mediating effect of work engagement, a simple mediation analysis with SPSS's PROCESS macro model 4 was used to find the influence of job resources on turnover intention through work engagement. In order to estimate the impact of work engagement as a mediator variable between job resources and turnover intention, the researcher combined the independent subscale variables into one variable called Job Resources Total; the four subscales—autonomy, performance feedback, supervisory support, and learning opportunities—were computed to create the new, single variable. Similarly, the three subscale variables that comprise work
engagement were computed as one variable, Work Engagement Total. This section provides the results of the simple mediation analysis with SPSS's PROCESS macro model 4.

**Mediation model linearity.**

In preparation for the analysis of the collected data from the respondents, it was necessary to determine whether mediation was a statistically appropriate procedure for the data set. In regression analysis, the relationship between job resources and turnover intention should be linear to minimize error (Hayes, 2013). The overall model linearity with mediation was assessed. Figure 4-3 shows that the regression model appears fairly linear since the Loess curve centers close to zero along the entire X-axis.

![Figure 4-3 Normally Distributed Standardized Residuals](image)

**Figure 4-3.** Normally Distributed Standardized Residuals

The regression model was reasonably described as linear, and the data were normally distributed and fit well along the diagonal. Therefore, it was determined that the data respect the assumptions required for the application of a multiple regression procedure. The next section details the results of the simple mediation analysis.
Normality of estimation error.

Estimation errors (residuals) should be approximately normally distributed (Hayes, 2013). A P-P plot (Figure 4-1) and a scatterplot (Figure 4-4) indicated that the data fit well with the diagonal line, although, as expected, there were minor violations of this linear model. When such minor violations occur, the results of the analysis should not be affected unless the sample size is tiny (Hayes, 2013). Because the data meet the statistical assumptions for a multiple regression reasonably well, a simple mediation analysis with SPSS's PROCESS macro model 4 was performed to investigate the mediating influence of work engagement on the relationship between job resources and turnover intention.

![Scatterplot of the relationship between work engagement as mediator variable and job resources and turnover intention](image)

Figure 4-4. Scatterplot of the relationship between work engagement as mediator variable and job resources and turnover intention

Mediation analysis and results.

While the data already met the statistical assumptions required for multiple regression analysis, an evaluation of the accuracy of the mediation effect was conducted using the most traditional model to test for mediation, the causal steps approach, as described by Baron and Kenny (1986). As discussed in Chapter 3, Baron and Kenny (1986) proposed a four-step approach to assessing a mediation effect. The necessary steps for mediation analysis consist of a series of three regression equations: $X \rightarrow Y$, $X \rightarrow M$, and $X + M \rightarrow Y$. If one or more of these
relationships are not statistically significant \( (p > 0.05) \), it means that mediation is not possible or likely.

Conversely, if all path variables represent statistically significant relationships \( (p < 0.05) \) in steps one through three, one can proceed to step four to determine the extent of mediation, which is typically described as either partial or full mediation. RQ4 required an examination of the direct, indirect, and total effect pathways of job resources on turnover intention with work engagement as an intermediary. Several regression analyses were conducted to examine the significance of the coefficients at each step of Baron and Kenny’s model; the steps taken in these analyses are described below.

In the first step, the effect of Job Resources Total on turnover intention (path c) was measured by using a simple regression analysis to calculate the significance of the direct effect (path c) between job resources and turnover intention. The overall model was significant with \( F(1, 318) = 21.77, p = < 0.01, R^2 = 0.06. \) The results indicate that the direct effect of the Job Resources Total variable significantly influenced turnover intention. The overall regression model was significant \( (\alpha = -0.13; p \leq 0.00) \). This result means that for every one unit increase in job resources, turnover intention decreased by about \(-0.13. \) \( R^2 = 0.06 \) indicates that job resources explain about 6\% of the variability in turnover intention. Thus, the result for path c means that the first condition for having an influential mediator variable is met.

Next, multiple regression analysis with job resources and work engagement together predicting turnover intention was conducted to test the significance of paths a and b (Figure 4-5). The results indicated that the overall model was significant with \( F(2, 317) = 13.6; p = < 0.05, \) and \( R^2 = 0.08. \) The path a was measured to calculate the significance of the indirect effects of the relationship between Job Resources Total and Work Engagement Total. The researcher used
Work Engagement Total as the dependent variable in the regression equation, and Job Resources Total as the predictor variable to measure the direct correlation between job resources and work engagement. The results show that the overall model was significant. There was a significant relationship between job resources and work engagement: $F(1, 318) = 95.71; p = < 0.01; R^2 = 0.08; \alpha = 0.14; t(318) = 9.8$. There was a significant positive relationship between the predictor variable, Job Resources Total, and the mediator variable, Work Engagement Total. For every one unit increase in Job Resources Total, Work Engagement Total increased by about 0.14 units. The result, $R^2 = 0.08$, means that Job Resources Total explains 8% of the variability in Work Engagement Total. The bootstrap CI is entirely below 0 (LLCI = −0.11; ULCI = −0.17), which shows that there is a 95% confidence level that the effect is positive. This part of the analysis showed that the second condition of having a partial mediation effect was met.

In the third step, multiple regression analysis was performed with Job Resources Total and Work Engagement Total together as predictors of turnover intention. This step tests for the significance of path $b$ after controlling for Job Resources Total. As shown in Figure 4-5, the result indicated that there was a significant indirect effect between Work Engagement Total and turnover intention: $t(317) = −2.28; (\alpha = −0.25; p = 0.02)$. There was a significant relationship between Work Engagement Total and turnover intention. For every one unit increase in Work Engagement Total, turnover intention decreased by −0.25 units. The result, $R^2 = 0.08$, means that 8% of the variability in turnover intention is explained by Work Engagement Total. The bootstrap CI is completely below 0 (LLCI = −0.47; ULCI = −0.04), so that the result meets the 95% confidence level. This part of the analysis showed that the third condition for determining partial mediation was met. Because both paths $a$ and $b$ were statistically significant, the criteria of Baron and Kenny’s procedures for establishing mediation were met.
In the fourth step, multiple regression analysis was conducted to test the extent of the influence of the mediation with Job Resources Total and Work Engagement Total as independent variables and turnover intention as the dependent variable. The result showed a significant negative relationship between job resources and turnover intention, where $F(2, 317) = 13.6$; $t(317) = -3.02$; $p < 0.05$; $\alpha = -0.0970$; and $p = 0.003$).

In summary, the total effect of Job Resources Total (path $c$) on turnover intention was significant ($\alpha = -0.13; p = 0.00$). Similarly, the direct effect of Job Resources Total (path $c'$) while controlling for work engagement was significant ($\alpha = -0.09; p = 0.003$). This result indicates that there was a small reduction in the effect of Job Resources Total in the total effect path and the direct effect path. Results of the mediation analysis confirmed that there was an indirect effect from Work Engagement Total in the relationship between Job Resources Total and turnover intention ($\alpha = -0.04; SE, 0.01; 95\%CI: -0.07 to -0.01$). The results confirmed that work engagement did not have a full direct mediating effect on turnover intention, but the...
finding supports a small partial mediation of work engagement on the relationship between job resources and turnover intention (Table 4-10).

**Chapter Summary**

The main goal of this quantitative study is to investigate the mediating influence of work engagement on the relationship between antecedents (e.g., supervisory support, performance feedback, autonomy, and learning opportunities) and consequence (turnover intention) among nursing practitioners at the RCMC, Yanbu, Saudi Arabia. The study was conducted using a sample of 320 nurses from the RCMC who completed an online survey. The survey data were analyzed using the IBM Statistical Package for the Social Sciences version 23 (SPSS-23). Specifically, Pearson’s correlation and simple mediation analysis with SPSS’s PROCESS macro model 4 were employed to determine the strength of the influence of job resources on turnover intention mediated by work engagement.

The results of the study indicated that there was a significant negative correlation between age and turnover intention ($r = -0.139; p \leq 0.013$), salary and turnover intention ($r = -0.145; p \leq 0.01$), and nationality and dedication ($r = -0.128; p \leq 0.05$). Also, it was found that the three dimensions of work engagement were significantly correlated with job resources and turnover intention. The strongest relationships were found between absorption and learning opportunities ($r = 0.424; p < 0.001$), dedication and learning opportunities ($r = 0.417; p < 0.001$); dedication and turnover intention ($r = -0.313**; p \leq 0.001$); learning opportunities and turnover intention ($r = -0.276$); and supervisory support and turnover intention ($r = -0.247$). Results of the mediation analysis confirmed there was an indirect effect of work engagement on the relationship between job resources and turnover intention ($\alpha = -0.04; SE, 0.01; 95\%CI: -0.07 to -0.01$). However, the results confirmed that work engagement did not have a full direct
mediating effect on turnover intention, but the finding supports a small partial mediation by work engagement.

**Table 4-10**

*The indirect effect of job resources on turnover intention through work engagement (n = 320)*

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficient (α)</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Summary</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Model Summary</td>
<td>$F (1, 318) = 21.77, p = .01, t(318) = -4.67, R^2 = .06, (α = .13, p = .00)$.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The total effect of job resources on turnover intention (bath c)</td>
<td>0.13**</td>
<td>0.02</td>
<td>-4.67</td>
<td>0.00</td>
</tr>
<tr>
<td>The indirect effect of job resources on work engagement (bath a)</td>
<td>0.14**</td>
<td>0.24</td>
<td>9.8</td>
<td>0.00</td>
</tr>
<tr>
<td>The indirect effect of mediator on turnover intention (bath b)</td>
<td>-0.25*</td>
<td>0.11</td>
<td>-2.28</td>
<td>0.02</td>
</tr>
<tr>
<td>The direct effect of job resources on turnover intention (bath c')</td>
<td>-0.096**</td>
<td>0.03</td>
<td>-3.02</td>
<td>0.002</td>
</tr>
<tr>
<td>The indirect effect of job resources on turnover intention through work engagement</td>
<td>(α = -0.04, SE, 0.01, 95%CI: -0.07 to 0.01).</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. α = Cronbach’s Alpha; SE = standard error; t = degree of freedom; **significant at the 0.01 level; * significant at the 0.05 level.*
Chapter 5

Summary, Discussion, Implications, and Recommendations

Research Summary

This chapter provides a summary and overview of the purpose of the study, the specific research questions addressed, the procedures followed to answer these questions, and the results of the quantitative analysis. The primary goal of conducting this research was to test the relationships between job resources and employees’ turnover intention while simultaneously examining work engagement as a mediating variable. This chapter is organized into three sections: Research Summary, Discussion, and Recommendations. The first section provides a summary of the purpose of the study, research questions, research procedures, and research findings. The second section of this chapter discusses the significant results, with reference to the implications of these findings that may be of future value to scholars and practitioners. The final section concludes with recommendations for applications of the research findings. It includes a discussion of the limitations of the study, areas for future research, and recommendations for nurses who are working at the RCMC in Yanbu, Saudi Arabia.

Purpose of the Study

The primary intent of this quantitative study was to test the mediating effects of work engagement on the relationship between its antecedents (demographic characteristics, performance feedback, supervisory support, job autonomy, and learning opportunities) and its consequence (turnover intention) among nurses working at the RCMC in Yanbu, KSA.
Research Questions

The study was designed to answer the following four research questions:

RQ1. To what extent do the demographic characteristics of nurses (i.e., gender, age, level of education, marital status, years of work experience, job category, nationality, and salary) influence turnover intention and three work engagement dimensions (vigor, dedication, and absorption)?

RQ2. To what extent do the four job resource dimensions (performance feedback, supervisory support, job autonomy, and learning opportunities) influence the work engagement dimensions (vigor, dedication, and absorption) and turnover intention among nurses working in the health services program at the RCMC in Yanbu, KSA?

RQ3. To what extent do the dimensions of work engagement influence employee turnover intention among nurses working in the health services program at the RCMC in Yanbu, KSA?

RQ4. To what extent does work engagement mediate the relationship between the various job resources and employee turnover intention among nurses working in the health services program at the RCMC in Yanbu, KSA?

Research Procedures

To answer the research questions and test the relationships among the variables of interest, the researcher adapted several existing survey instruments. The Utrecht Work Engagement Scale (UWES-9), the Job Diagnostic Survey (JDS), the Questionnaire on the Experience and Evaluation of Work (QEEW2.0), the Job Content Questionnaire (JCQ), and the
Questionnaire on the Experience and Evaluation of Labor (QEEL) were adapted for use in the present study. The researcher also included eight demographic items (i.e., gender, age, level of education, marital status, years of work experience, position title, nationality, and salary). These items were combined with the above-named instruments in a single, web-based questionnaire that was developed using Survey Qualtrics at the Pennsylvania State University.

After the survey questionnaire was developed, the reliability and validity of the questionnaire were assessed. The content validity of the questionnaire was tested by getting feedback from a panel of experts and by conducting a field test. After content validity was achieved, the back-translation method was used to translate the instrument from English into Arabic to ensure that the translation process did not change the original meaning of each item in the questionnaire (see Chapter 3). After the questionnaire was translated from English to Arabic, the researcher obtained the approval of the Institutional Review Board (IRB) to conduct the study. Next, a pilot test was conducted to evaluate the instrument’s reliability to be confident that all nursing personnel would understand the questions in the same way. In the pilot test, 50 nurses were asked to fill out the survey to evaluate the appropriateness of the data collection procedure before executing the actual study.

After the reliability and validity of the questionnaire were assured, and the approval from the IRB was received to collect data from the RCMC, the researcher obtained formal permission from the RCMC’s human resource manager and information technology manager to distribute the survey questionnaire and recruitment letter using the organization’s email system (Outlook Web). The questionnaire was sent, accompanied by a cover letter that included the following information: the title of the study, the name of the sponsor, the goal of the study, the importance of his/her responses, a guarantee of confidentiality, recognition of his/her contribution to social
research, brief directions for completing the survey, the expected time to complete the survey, and an advisory of implied consent to participate in the study. Once participants received the link to the survey, they read the implied informed consent letter followed by an “accept to participate/continue” button to begin answering the survey questions.

The researcher electronically distributed a total of 498 surveys via the organization’s email system (Outlook Web). The total number of nursing personnel who completed the online survey was 320, which is equal to 64% of the total number of survey recipients. There were no missing data due to the use of the Qualtrics option that does not allow submission of a survey unless all items are completed.

After the data were collected from participants, the data were downloaded into the IBM Statistical Package for the Social Sciences (SPSS) version 23 to examine the relationships between the independent, mediator, and dependent variables. Also, SPSS's PROCESS macro model 4 was used in the analysis to assess the influence of work engagement as a mediator variable between job resources and turnover intention.

**Research Findings**

The collected data were analyzed by using SPSS and SPSS's PROCESS macro to answer the research questions. Demographic information (e.g., gender, age, level of education, marital status, years of work experience, job title, nationality, and salary) was collected to obtain an overall profile of the study participants. The majority of respondents were female (252; 78.8%), and 68 (21.3%) were male. Most (91.2%) of the respondents fell into the 30–39 years of age category. The average age of the participants was 35.7 years old. The majority of respondents had a Bachelor of Science degree (231; 72.2%). Two in five respondents (156; 48.8%) had 1–5 years of work experience. The majority of participants (77.5%) were classified as registered
nurses. With respect to salary, the largest group of respondents (155; 48.4%) received a monthly salary between 5001 and 10000 Saudi Riyal.

Before performing correlation and regression procedures, the researcher checked the reliability, normality, linearity, and homoscedasticity of the collected survey data. The results of these tests helped to assess the normality of the data distributions and the internal consistency of the summated Likert scale scores (Dillman, 2014). First, reliability was assessed using Cronbach’s α, and the results showed internal consistency for all survey instruments with values for Cronbach’s α ranging from 0.71 to 0.88. Additionally, a normal P-P plot and histogram of residuals were used for assessing normality. They showed the residuals to be normally distributed. Linearity was evaluated by generating a normal P-P Plot and scatterplot, which showed that the linearity of the relationships between variables met the acceptable levels for regression analysis. Homoscedasticity was assessed using Levene's test; the result showed α = 1, indicating that there was no significant difference in the equality of variance through the various conditions of the study. Therefore, the collected data from the respondents met all the criteria for performing all the chosen statistical procedures: correlation, multiple regression analysis, and simple mediation analysis.

The first three research questions were addressed by conducting bivariate correlations and multiple regression analyses.

The first research question required an examination of the Pearson’s correlation coefficients obtained for the relationships between the demographic characteristics (e.g., gender, age, level of education, marital status, years of experience, position title, nationality, and salary) and turnover intention, and between demographic characteristics and the three dimensions of work engagement (vigor, dedication, and absorption). The results indicated that there was a
significant negative, but relatively low, the correlation between age and turnover intention \((r = -0.139; p \leq 0.013)\) and between salary and turnover intention \((r = -0.145; p \leq 0.01)\). Thus, age and salary were the only demographic variables examined in the study that statistically explained any of the variances in respondents’ turnover intention.

The second part of RQ1 required the examination of the relationships between the demographic characteristics and the three dimensions of work engagement (vigor, dedication, and absorption). It was found that there were significantly positive, though relatively low, correlations between the demographic variable, Nationality, and the Dedication dimension of work engagement \((r = 0.128; p \leq 0.05)\), and between the demographic variable, Age, and the Dedication dimension of work engagement \((r = 0.136; p \leq 0.015)\). Thus, Nationality and Age were the only demographic variables examined in the study that statistically explained any of the variances in work engagement among the respondents.

RQ2 focused on the relationships between the four dimensions of job resources (autonomy, performance feedback, supervisory support, and learning opportunities) and the three dimensions of work engagement (vigor, dedication, and absorption). The second part of RQ2 required testing the relationships between the job resource variables and turnover intention.

The results of bivariate correlation procedures revealed that all four dimensions of job resources included in the analysis were positively and significantly correlated with all three dimensions of work engagement. The analysis also found that Autonomy had significantly lower, or only moderate, correlation with the three dimensions of work engagement (for Vigor, \(r = 0.283\) with \(p \leq 0.001\); for Dedication, \(r = 0.283\) with \(p \leq 0.001\); for Absorption, \(r = 0.369\) with \(p \leq 0.001\); and for Work Engagement Total, \(r = 0.363\) with \(p \leq 0.001\)).
The results of bivariate correlation revealed that Performance Feedback was weakly to moderately correlated with the three dimensions of work engagement (for Vigor, $r = 0.317$ with $p < 0.001$; for Dedication, $r = 0.360$ with $p \leq 0.001$; for Absorption, $r = 0.318$ with $p \leq 0.001$; and for Work Engagement Total, $r = 0.386$ with $p \leq 0.001$).

Additionally, the results indicated that Supervisory Support was weakly to moderately correlate with the three dimensions of work engagement (for Vigor, $r = 0.237$ with $p \leq 0.001$; for Dedication, $r = 0.310$ with $p \leq 0.001$; for Absorption, $r = 0.378$ with $p \leq 0.001$; and for Work Engagement Total, $r = 0.357$ with $p \leq 0.001$). Finally, Learning Opportunities was moderately correlated with Absorption ($r = 0.424; p \leq 0.001$), Vigor ($r = 0.336; p \leq 0.001$), Dedication ($r = 0.424; p \leq 0.001$), and Work Engagement Total ($r = 0.455; p \leq 0.001$).

Ultimately, all the job resources variables could statistically explain some variance in the three dimensions of work engagement. The strongest relationships were found between Learning Opportunities and Absorption ($r = 0.424; p \leq 0.001$) and Learning Opportunities and Dedication ($r = 0.417; p \leq 0.001$). The weakest relationships found were those between the work engagement dimension of Vigor and the job resource dimension of Supervisory Support ($r = 0.24; p \leq 0.001$), and between Vigor and the job resource dimension of Autonomy ($r = 0.28; p \leq 0.001$).

The second part of RQ2 focused on the relationships between the four types of job resources (autonomy, performance feedback, supervisory support, and learning opportunities) and turnover intention. The results of bivariate correlation revealed that the four types of job resources had weak to moderate negative correlations with turnover intention (for Autonomy, $r = -0.177$ with $p \leq 0.001$; for Performance Feedback, $r = -0.276$ with $p \leq 0.005$; for Supervisory Support, $r = -0.247$ with $p \leq 0.001$; for Learning Opportunities, $r = -0.276$ with $p \leq 0.001$; and
for Job Resources Total, $r = -0.253$ with $p \leq 0.001$). The results of the bivariate correlations revealed that the four job resource variables could statistically explain some of the variances in turnover intention.

RQ3 required testing the relationships between the three dimensions of work engagement and turnover intention. The results of bivariate correlation revealed that each of the dimensions of work engagement was weakly negatively correlated with turnover intention. Specifically, there was a weak negative correlation between turnover intention and Dedication ($r = -0.313; p \leq 0.001$); a weak negative correlation between Vigor and turnover intention ($r = -0.123; p \leq 0.005$); a weak negative correlation between Absorption and turnover intention ($r = -0.230; p \leq 0.001$); and a weak negative correlation between Work Engagement Total and turnover intention ($r = -0.165; p \leq 0.001$). Therefore, the results from bivariate correlation revealed that the three dimensions of work engagement only weakly explain the variance in turnover intention.

The last research question (RQ4) asks whether work engagement mediates the relationship between job resources and turnover intention. A simple mediation analysis using SPSS's PROCESS macro model 4 was used to determine the influence of job resources on turnover intention mediated by work engagement. To estimate the impact of work engagement as a mediator variable between job resources and turnover intention, the individual job resources variables were scored as a single variable called Job Resources Total, and the three dimensions of work engagement were combined to create a single mediator variable, called Work Engagement Total. RQ4 required an examination of the direct, indirect, and total effect pathways of job resources on turnover intention mediated by work engagement.

In preparation for the simple mediation analysis of the data from the respondents, the variables were examined in terms of linearity and normality to determine if the mediation
procedure was statistically appropriate. Linearity was checked using scatterplots that indicated that the regression appeared fairly linear, and the Loess curve centered close to zero along the entire X-axis. To test for normality, a P-P plot was created that indicated that the data fit reasonably well with the diagonal line, although there were minor deviations. Thus, the data were found to conform to the assumptions for the use of multiple regression relatively well. The mediation effect of work engagement was measured using the most traditional model, which was proposed by Baron and Kenny (1986). Several regression analyses were conducted to examine the significance of the coefficients at each of the four steps of Baron and Kenny’s procedure.

The basic steps for mediation analysis involved the generation of regression equations: Job Resources → Turnover Intention; Job Resources → Work Engagement; and Job Resources + Work Engagement → Turnover Intention.

The effect of Job Resources Total on Turnover Intention was significant ($\alpha = -0.13; p \leq 0.00$). Similarly, the direct influence of Job Resources Total while controlling for work engagement was significant ($\alpha = -0.097; p \leq 0.003$). This result indicates that there was a small reduction in the effect of Job Resources Total in the total effect path and the direct effect path. Results of the mediation analysis confirmed that there was an indirect effect of Work Engagement Total in the relationship between Job Resources Total and Turnover Intention ($\alpha = -0.04; SE: 0.01; 95\% CI: -0.07$ to $-0.01$). The results confirmed that Work Engagement Total did not have a full direct mediating effect on Turnover Intention, although the findings support a small partial mediation effect of Work Engagement Total on the relationship between Job Resources Total and Turnover Intention (Table 4-10).
Discussion

This research aimed to assess the mediating effects of work engagement on the relationship between its predictors (demographic characteristics, performance feedback, supervisory support, job autonomy, and learning opportunities) and its consequence (turnover intention) among nurses working at the RCMC in Yanbu, KSA. In this research project, several relationships encompassed by the research questions were tested. Based on a review of the scholarly work of others and the results of the present study, several conclusions can be made that may be crucial for an organization’s success concerning human resource management.

RQ1 focused on the relationships between the demographic characteristics of nurses (i.e., gender, age, level of education, marital status, years of work experience, job title, nationality, and salary) and turnover intention. The bivariate correlation results indicated that there were significant, negative, relatively low correlations between the age of the nurses and their turnover intention ($r = -0.139; p \leq 0.013$) and between salary and turnover intention ($r = -0.145; p \leq 0.01$). This result means that age and income can be factors in turnover intention especially for younger nurses, nurses with less work experience, and lower-salaried nurses. It was shown that for every one unit increase in the respondents’ ages, turnover intention decreased by about 14%. In the current study, 68 nurses had high turnover intention scores (18 or higher on a scale where 21 was the highest score possible across the three turnover intention items). Of those 68 nurses, 71% had less than 10 years of nursing experience, 94% were 36 years or younger, and 88% earned 10,000 SR or less. The findings regarding salary, age and experience are broadly in line with those of other researchers (e.g., Burdett, Carrillo-Tudela & Coles, 2011; Hokanson, Sosa-Fey & Vinaja, 2011). Those studies agreed that an employee’s
age and salary were predictors of an employee’s turnover intention. Based on the results of this and other studies, older nurses are less likely to quit or leave their jobs. Additionally, the bivariate correlation results indicated that there was a significant positive, though relatively low, the correlation between age and dedication ($r = 0.136; p \leq 0.015$).

The results indicating that age has a negative relationship with turnover intention and a positive relationship with dedication suggest that age can be an important factor in employee retention. While many (91.2%) of the participants in this study were in the 30–39 years old category, human resource practitioners at the RCMC should place more weight on retention strategies for their employees. It may be especially important to pay specific attention to those nurses in their early- to mid-career years earning a lower income.

RQ2 aimed to measure the influence of the four types of job resources (job autonomy, performance feedback, supervisory support, and learning opportunities) on the three dimensions of work engagement and on turnover intention among nursing personnel at the RCMC. The results of this study indicated that all four of the job resources variables considered were positively and significantly correlated with each of the three dimensions of work engagement. The strength of the relationships between variables ranged from $r = 0.24 (p \leq 0.001)$ to $r = 0.424 (p \leq 0.001$; see Chapter 4, Table 4-7). The strongest relationships found were between Learning Opportunities and Absorption ($r = 0.424; p \leq 0.001$) and between Learning Opportunities and Dedication ($r = 0.417; p \leq 0.001$); the weakest relationship (low correlation) was between Supervisory Support and Vigor ($r = 0.24; p \leq 0.001$).

The findings of this study are consistent with the results of previous studies in different occupational settings in which researchers found that job resources had statistically significant relationships to work engagement (Bakker & Demerouti, 2008; Bakker et al., 2007; Demerouti et
Hakanen et al. (2006) reported that the most important predictors of work engagement were job resources. According to the JD-R Model, an increase in job resources and a decrease in negative job demands enhance both organizational outcomes and employee performance. Bakker and Demerouti (2007) highlighted that job resources could improve, not only the level of engagement, but it can go further than that by improving employee motivation. Job resources also are considered an essential factor in reducing the impact of job demands on employees, supporting employees in achieving work goals, and stimulating growth, earnings, and development (Bakker & Demerouti, 2007; Bakker & Geurts, 2004; Schaufeli & Bakker, 2004). Based on the results of this study and other scholars’ work, we can conclude that job resources have been shown to have a positive effect on work engagement as well as on different organizational outcomes, such as employee performance and motivation.

The present study addresses how perceived learning opportunities for professional development are related to work engagement and turnover intention, and the findings of this study are consistent with the results of previous studies in different occupational settings (Demerouti et al., 2001; Schaufeli et al., 2009; Taneja, Sewell & Odom, 2015; Witt, Kacmar & Andrews, 2001).

To enhance the level of employee engagement and reduce the level of turnover intention, HR practitioners should improve employees’ learning opportunities to meet their current and future job requirements. Providing learning opportunities to one group in the organization is inadequate; learning opportunities must be conducted across multiple departments to enhance the level of employee engagement and reduce the level of turnover intention. Berger and Berger (2010) classified employees into four groups based on the degree to which the organization was
willing to invest in them: superkeepers, keepers, key position backups, and solid citizens.

HR/OD practitioners need to allocate "investments made by an organization today in the form of training, rewards, education, assignments, and development activities [also referred to as TREADs] appropriately among these groups” (Berger & Berger, 2010). The following section explains how TREADs can be allocated appropriately among these groups. Berger and Berger (2010) demonstrated that superkeepers are essential employees in the organization, who usually comprise about 3% of all employees. Superkeepers greatly exceed the organization’s expectations, and they receive about 5% of the allocations for TREADs. This group needs very high development investment, very high recognition, compensation greater than the going market rate, and rapid promotion. It is critical that they receive enough TREADs allocations because insufficient TREADs might lead to high turnover among this group. Thus, HR/OD practitioners need a strategy to retain superkeepers and raise the performance bar for these employees who play such a significant role in making the business successful. The second group, the keepers, comprise around 20% of all employees; this group exceeds the organization’s current expectations and are projected to continue to do so in the future. They typically receive about 25% of TREADs allocations. The keeper group needs high recognition, compensation that is much more than the going market rate, and rapid promotion. In terms of learning opportunities, HR/OD practitioners should prepare these employees to be backups for the superkeepers to ensure that the right supply of talented employees is ready to undertake the current and future strategic goals of the organization. Inadequate allocation of TREADs for the keepers could result in high turnover and performance problems among this group. The third group, solid citizens, comprise the majority of all employees, approximately 75%. The membership of this group just meets the organization’s expectations, and they receive about 68%
of TREADs allocations. The solid citizens also need recognition, but only need to be compensated at market levels, or slightly above until a competitive level is reached. It is critical for HR/OD practitioners to invest in this group as well because they are the majority.

Additionally, investment in solid citizens is of great importance because these employees can be used as backups for keepers’ positions (the fourth group). In this way, the organization can reduce the cost of turnover among keepers, as well as prepare employees to compete effectively to achieve the organization’s goals. Thus, to succeed in enhancing the level of employee engagement and reduce turnover intention, HR/OD practitioners should enhance all employees’ capabilities to meet their current and future job requirements by the appropriate allocation of TREADs.

Turnover intention is an organizational outcome of considerable concern because the costs of employee turnover are substantial for organizations (Alexander, Bloom, & Nuchols, 1994). Thus, the second part of RQ2 aimed to measure the relationships between different kinds of job resources (job autonomy, performance feedback, supervisory support, and learning opportunities) and turnover intention. The results indicated that turnover intention was weakly and negatively correlated with all four types of job resources (job autonomy, performance feedback, supervisory support, and learning opportunities). These findings also are consistent with those of previous studies (e.g., Hansung & Madeleine, 2008; Knudsen et al., 2009). These studies found that different kinds of job resources (e.g., job autonomy, performance feedback, supervisory support, and learning opportunities) had a direct, negative effect on turnover intention.

Based on the results of this study and other scholars’ work, job resources can increase the likelihood that employees will stay in the organization. Thus, the costs of employee turnover
could be controlled, or at least managed, by providing employees with sufficient job resources, which leads to more engaged employees.

RQ3 asks whether any of the dimensions of work engagement (vigor, dedication, and absorption) had an influence on turnover intention among nursing personnel at the RCMC. The results indicated that all of the dimensions of work engagement were negative, albeit weakly, correlated with turnover intention: Turnover Intention and Vigor, $r = -0.123$ with $p \leq 0.001$; Turnover Intention and Absorption, $r = -0.165$ with $p \leq 0.001$; and Turnover Intention and Dedication, $r = -0.313$ with $p \leq 0.001$; see Chapter 4, Table 4-9). Earlier studies also found a negative correlation between work engagement and employee turnover intention (Saks, 2006; Schaufeli & Bakker, 2004).

RQ4 aimed to assess whether work engagement mediated the relationship between job resources and turnover intention. In other words, the idea behind this question was to test the effects of job resources on work engagement, which, in turn, affects turnover intention. To examine the strength of the relationships between the job resources and turnover intention, along with the effect of work engagement as a mediator variable, the four-step simple mediation model proposed by Baron and Kenny (1986) was employed. Baron and Kenny explained that establishing a mediating relationship could be done by testing three multiple regression models. In the current study, a simple mediation analysis with SPSS's PROCESS macro model 4 was used to evaluate the influence of job resources on turnover intention mediated by work engagement, and the results indicated that the mediation relationship was significant for all relationships examined. First, the relationship between Job Resources Total (predictor) and Turnover Intention (outcome) was established (path $c$). Second, the relationship between Job Resources Total (predictor) and Work Engagement Total (mediator) was established (path $a$).
Third, the relationship between Work Engagement Total (mediator) and Turnover Intention (outcome) was established (path b), as well as the estimated relationship between Job Resources Total and Turnover Intention controlling for Work Engagement Total (path c’). Frazier et al. (2004) explained that the power of tests of mediation is greatest when the relationships of path b and path a present comparable correlation coefficients and, furthermore, when the strength of the relationship of path b exceeds the strength of the relationship of the path a. In the present study, the relationship between Work Engagement Total and Turnover Intention (path b: $\alpha = -0.25; p = 0.02$) was stronger than the relationship between Job Resources Total and Work Engagement Total (path a: $\alpha = 0.14; p = 0.00$). Thus, the significant influence of work engagement (mediator) on turnover intention (outcome) was greater than the influence of job resources on work engagement ($-0.25 > 0.14$).

Additionally, the results indicated that the total effect of Job Resources Total (path c) on Turnover Intention was significant ($\alpha = -0.13; p = 0.00$). Similarly, the direct effect of Job Resources Total (path c’) while controlling for Work Engagement Total was significant ($\alpha = -0.097; p = 0.003$). This result indicates that there was a small reduction of the effect of Job Resources Total in the total effect path and the direct effect path. In short, work engagement was found to mediate the relationship between available job resources and turnover intentions, and this finding is also consistent with previous studies (e.g., Schaufeli & Bakker, 2004). Taken together, the results confirmed that work engagement did contribute a small partial mediation between job resources and turnover intention (see Chapter 4, Table 4-10).

Again, because turnover intention is considered an organizational outcome of great interest due to the substantial costs of employee turnover (Alexander, Bloom & Nuchols, 1994;
Bluedorn, 1982), the results of this study may be used to further identify and develop strategies to reduce employee turnover and to improve the level of engagement among nursing personnel.

**Implications**

The results of this study make a substantial contribution to the body of knowledge concerning the mediating effects of work engagement on the relationship between “antecedents” (job resources, i.e., supervisory support, performance feedback, autonomy, and learning opportunities) and “consequences” (employee turnover intention in the Saudi context). Based on the results of the present study, there are some implications for scholars, HR/OD practitioners, nurses, and healthcare personnel managers in healthcare organizations in Saudi Arabia.

**Implications for scholars.**

The results of this study have some implications for scholars in the HR field. First, there is still a shortage of research on work engagement antecedents and consequences in Saudi Arabia. Scholars ought to collect data from other healthcare practitioners working in other hospitals in different regions of Saudi Arabia.

With respect to research on work engagement antecedents and consequences, to date, few studies had been conducted within healthcare organizations in Saudi Arabia. Bakker and Demerouti (2007) asserted that work engagement becomes an essential topic in large part because of the consequences of engagement that might influence organizational outcomes. Abdulla et al. (2011) emphasize that Saudi Arabia has received relatively little attention from researchers on the mediation effect of work engagement antecedents and consequences. Even though Western researchers have conducted several studies about work engagement antecedents and consequences, the meaning of these results cannot be automatically extended to the Saudi
Arabian context due to fundamental cultural differences between Saudi Arabia and the West (Ali, 1996).

In this study, work engagement had been tested as a mediator variable between job resources as its antecedents (autonomy, performance feedback, supervisory support, and learning opportunities) and turnover intention as its consequence. The three dimensions of work engagement (vigor, dedication, and absorption) were combined into a single variable as were the original four job resources variables. This study focused only on the mediation influence of work engagement in the relationship between job resources and turnover intention. Investigators can test other potential antecedents of work engagement based on the assumptions of the JD-R model. The JD–R model assumes that the workplace environment is categorized into job demands and job resources (Demerouti et al., 2001).

Scholars can modify the conceptual framework of this study by testing the mediating influence of all three dimensions of work engagement (vigor, dedication, and absorption) on the relationship between other antecedents and consequences. For example, scholars may test the mediating influence of the three dimensions of work engagement (vigor, dedication, and absorption) on the relationship between antecedents (e.g., job resources, personal resources, and job demands) and consequences (e.g., turnover intention, job satisfaction, creativity, and productivity). Specifically, scholars might select other ways to operationalize “job resources,” for example, social support from co-workers, job control, and task variety; they might also examine the influence of personal resources, such as self-efficacy and resilience, on organizational outcomes. Job demands, such as work pressure, work overload, time pressure, role conflict, and emotional demands, can also be used as variables in a similar analytical program. Testing different kinds of job resources, job demands, and personal resources as
antecedents of the three dimensions of work engagement can build on the results of previous studies and expand the scope of knowledge about the mediating influence of vigor, dedication, and absorption. Hence, the most important implication for scholars is that there is a need for more research to test the usefulness of the JD-R model in Saudi Arabia. These studies may help to provide an in-depth understanding of the mediating influence of the three dimensions of work engagement (vigor, dedication, and absorption) on the relationship between its antecedents and consequences.

This study was conducted with a narrowly defined group of employees—nursing personnel at the RCMC. In the future, scholars could modify the character of the study sample by including other categories of medical practitioners, and they can collect data from other hospitals in different regions in Saudi Arabia. Conducting such studies in different areas might help to understand the influence of the differences in demographic characteristics in each hospital and region in Saudi Arabia.

**Implications for HRD practitioners.**

Nursing professionals are the largest group of healthcare providers in the healthcare industry, and their expertise is necessary to provide high-quality medical services. The fact is that the nursing profession is considered to be characteristically stressful. Statistically, one out of three nurses experiences job burnout in the workplace (Janssen, Jonge & Bakker, 1999). The healthcare industry in Saudi Arabia also faces several challenges due to shortages of nurses, high nurse turnover, and new labor policies. Almalki et al., (2011) state that healthcare organizations in Saudi Arabia are challenged by the high turnover rate of native and expatriate healthcare professionals. High turnover rate is not the only challenge facing healthcare organizations. The Saudi healthcare system needs to attract between 48,000 to 100,000 female nurses and 11,000 to
22,000 male nurses by 2030 (Ministry of Labor Report in Saudi Arabia, 2016). All these factors continue to be among the most vexing problems for healthcare systems in Saudi Arabia. The implications of this research for HR/OD practitioners in healthcare organizations in Saudi Arabia are critical for engaging and retaining these valuable employees in the workplace.

The meaning of “work engagement” is ambiguous among employees and HR/OD practitioners in Saudi Arabia. They think that the concept of work engagement is similar to other related concepts (such as job involvement, organizational commitment, or job satisfaction). An unclear definition of engagement might lead to a loss of opportunities to correctly measure and improve work engagement in the workplace. HR/OD practitioners should design a training program that helps employees to understand the concept of work engagement and distinguish it from other related terms.

Another implication for HR/OD practitioners is that the research indicates the need to identify the possible antecedents of work engagement that support an individual’s positive experience in their employment. It is critical to implement an effective model for enhanced engagement for nursing personnel, which in turn enhances the overall performance of the healthcare industry. Van Veldhoven et al. (2005) found that the JD-R model is a superior model in terms of providing the best explanation for the relationships between job characteristics and employee engagement. The JD-R model can be the best model for HR/OD practitioners who are exploring what contributing factors are most crucial for improving the level of engagement among nursing personnel (Demerouti & Bakker, 2011). Schaufeli and Bakker (2010) recommend the JD-R model because it considers work engagement as a mediator variable in the relationship between job resources and positive outcomes, lowering the turnover rate among employees.

According to the JD-R model, the characteristics of organizational environments are categorized
into job demands and job resources. Changes in job demands might help to reduce the level of employee burnout and stress, but job resources have a positive influence on work engagement (Demerouti et al., 2001; Schaufeli & Bakker, 2004). Hakanen, Bakker, and Demerouti (2005) conducted a study among dentists, and they found that job resources were the most important predictors of work engagement, specifically when employees face high job demands in the workplace. HR/OD practitioners can determine the most salient job resources in any occupation by conducting cognitive interviews with relevant employees (Bakker & Demerouti, 2007). Information from cognitive interviews can help HR/OD practitioners to identify and promote the job resources that act as a buffer between employees and the demands of their roles. The purpose of identifying job resources is to ensure that the right supplies of job resources are available for employees to make job less stressful. There are many advantages for HR/OD practitioners in adopting the JD-R model as a diagnostic framework in order to identify the drivers of work engagement among nursing practitioners.

**Implications for HRD practitioners at the RCMC.**

The results of the present study suggest some recommendations that can help HR/OD practitioners and decision-makers at the RCMC specifically. The first recommendation for HR/OD practitioners at the RCMC is that they should consider the results of this study, which identifies four important job resources (autonomy, performance feedback, supervisory support, and learning opportunities) that had a significant relationship with work engagement and turnover intention among nursing practitioners. These antecedents can be targeted by HR/OD practitioners’ interventions in an attempt to increase work engagement and reduce employee turnover intention. One of the HR/OD practitioners’ functions is to measure the level of employee engagement with regard to the autonomy, performance feedback, supervisory support,
and learning opportunities that they experience in the workplace. This monitoring strategy can help to identify the challenges related to employee engagement and provide a basis for the development of integrated strategies that address the shortage of these job resources in the workplace.

The second recommendation for HR/OD practitioners at the RCMC is that, because the quality of the relationships between employees and leaders can play an important role in employee retention and employee engagement, HR/OD practitioners should design a training and development program that helps supervisors and managers to communicate with their subordinates effectively. The benefit of providing training and development programs for managers and supervisors is to fulfill their need to understand the importance of their support in creating an attractive work environment that enhances the level of engagement and reduces the level of turnover intention among nursing practitioners. Indeed, managers and supervisors need to demonstrate concern for the welfare of those under them, pay attention to what they are saying, and help their subordinates to get the job done. When managers and leaders are highly skilled at supervisory support, they make employees feel part, and valued by, the organization. HR/OD practitioners can assess the level of supervisory support that nurses receive in the workplace by adopting the Job Content Questionnaire (JCQ). Based on the results of the JCQ, HR/OD practitioners can design a training and development program that helps to close the gap between managers’ and supervisors’ current and desired levels of support for their subordinates in order to improve the level of employee engagement.

The third recommendation for HR/OD practitioners at the RCMC is to pay attention to the finding of the present study that learning opportunities in the workplace had the most influence on the level of engagement among nurses at the RCMC. To make nurses better
engaged with the organization, HR/OD practitioners should ensure their future growth opportunities in the organization. Consequently, if the nurses are confident that the organization is committed to their long-term prosperity, they tend to stay engaged with the organization for the long run. HR/OD practitioners and decision-makers at the RCMC can foster engaged employees by providing them with accessible avenues for growth within the organization. Providing proper training facilities for employees can persuade them to stay engaged with the organization and reduce the level of employee turnover. The additional costs that the organizations incur for training their employees could be easily recovered in the form of higher productivity and a decrease in the costs of recruiting and training new employees. HR/OD practitioners can evaluate nurses’ satisfaction with current training and learning opportunities by using the Questionnaire on the Experience and Evaluation of Work (QEEW2.0). Moreover, HR/OD practitioners should ensure that training programs are aligned to the needs of both the employees and the organization.

**Recommendations**

**Recommendations for future research.**

There are two obvious recommendations for future research. First, scholars can extend this study by adding job demands and personal resources as independent variables in this kind of research design. Also, while in the present study the three dimensions of work engagement (vigor, dedication, and absorption) were computed as one variable in the simple mediation analysis, scholars may test the mediating influence of the three dimensions of work engagement (vigor, dedication, and absorption) on the relationship between antecedents (e.g., job resources, personal resources, and job demands) and consequences (e.g., turnover intention, job satisfaction, creativity, and productivity) independently.
Additionally, future studies could be done with a modification of the data collection method. For example, the cognitive interview method can be used instead of using a survey instrument to collect data from participants. The cognitive interview method can be used to obtain more accurate information about the most important antecedents of work engagement. The type of interaction between interviewer and interviewee can affect the quality of the information obtained. Thus, scholars can conduct studies by using a qualitative data collection method instead of, or in addition to, quantitative methods.

Limitations

This study has several limitations. First, although the target population of the study is all nurses working in the Madinah region in the western part of Saudi Arabia, the data of this study were collected only from nurses working at the RCMC. This fact may limit the sample’s representativeness of the entire population in the region, and make it more difficult to generalize the results of this study to other hospitals in the Madinah region, or even to other professions in the RCMC.

Second, the data collection method is a critical part of the research process because the quality of the collected data is conditioned by the way the data are obtained. Watkins, Meiers, and Visser (2012) assert that the quality of the collected data is an essential factor in making accurate decisions based on data interpretation. In this study, the data were collected by using only a self-report questionnaire to identify relationships between variables. Even though the survey is one of the most popular methods of data collection, the results of the study might be not generalizable due to this choice of method. To get deep and comparable information, the interview method is a very effective one. The type of interaction between interviewer and interviewee can affect the quality of the information obtained, but this type of approach can help
to get more accurate information than from self-report questionnaires. A self-report survey has its limitation (e.g., response bias and sampling bias), and the findings of the present study might be affected by using this method.

Third, this study includes a limited number of antecedent variables and consequence variables. However, this study can be easily extended by adding other potential variables, such as job demands and personal resources, in order to obtain more information about the influence of work engagement as a mediating variable between antecedents and consequences. A further limitation of the present study is that the researcher did not follow up with the non-respondents. There is a possibility for response bias in the sample of those who did volunteer to participate in the study.
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Appendix A

IRB_PSU Approval Letter for Use of Human Research Subjects

EXEMPTION DETERMINATION

Date: February 23, 2018
From: Courtney Whetzel,
To: Meshal Aljohani

<table>
<thead>
<tr>
<th>Type of Submission</th>
<th>Initial Study</th>
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<tr>
<td>Title of Study</td>
<td>THE MEDIATING EFFECTS OF WORK ENGAGEMENT BETWEEN JOB RESOURCES AND EMPLOYEES’ TURNOVER INTENTION</td>
</tr>
<tr>
<td>Principal Investigator</td>
<td>Meshal Aljohani</td>
</tr>
<tr>
<td>Study ID</td>
<td>STUDY000009051</td>
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<tr>
<td>Submission ID</td>
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<tr>
<td>Funding</td>
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</tr>
</tbody>
</table>

Documents Approved:
- Survey Instrument .docx (1), Category: Data Collection Instrument

The Office for Research Protections determined that the proposed activity, as described in the above-referenced submission, does not require formal IRB review because the research met the criteria for exempt research according to the policies of this institution and the provisions of applicable federal regulations.

Continuing Progress Reports are not required for exempt research. Record of this research determined to be exempt will be maintained for five years from the date of this notification. If your research will continue beyond five years, please contact the Office for Research Protections closer to the determination end date.

Changes to exempt research only need to be submitted to the Office for Research Protections in limited circumstances described in the below-referenced Investigator Manual. If changes are being considered and there are questions about whether IRB review is needed, please contact the Office for Research Protections.

Penn State researchers are required to follow the requirements listed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within CATS IRB (http://irb.psu.edu).

This correspondence should be maintained with your records.

We would like to know how the IRB Program can better serve you. Please fill out our survey; it should take about a minute: https://www.research.psu.edu/irb/feedback.
Appendix B

Approval RCMC TO Conduct Research

MEMORANDUM

ROYAL COMMISSION MEDICAL CENTER, YANBU
HEALTH SERVICES PROGRAM
MEDICAL AFFAIRS DIVISION

To: DR. ABOULKADER AL JUHANI
   Director, Medical Education, Training & Research Department

From: DR. FUAD M. AL-SHAEBI
   Director, Medical Affairs/Chairman, Medical Ethics & Research Committee

Subject: RESEARCH PROPOSAL ENTITLED, "AN EXAMINATION OF THE MEDIATOR INFLUENCES OF WORK ENGAGEMENT ON TURNOVER INTENTION OF THE HEALTHCARE WORKFORCE AMONG NURSING PRACTITIONERS IN ROYAL COMMISSION AT YANBU, HEALTH SERVICES PROGRAM IN SAUDI ARABIA"

Date: January 29, 2018 (12 Jumada I 1439)

Copy to: Medical Ethics & Research Committee

The above subject research proposal submitted through Medical Education, Training and Research Department by Mr. Meshal Al Juhani, a former employee in Royal Commission Medical Center (RCMC), as a requirement for his PH Degree, was reviewed and discussed in the Medical Ethics & Research Committee meeting on January 25, 2018.

Following review of the survey questionnaire, the committee granted the approval to the research proposal to be conducted by Mr. Meshal Al Juhani in RCMC through electronic survey questionnaire amongst nursing staff his target population. Statement of confidentiality and consent are to be included online.

Please inform Mr. Al Johani of committee’s approval.

Note: Any research/case study for publication done by the staff/intern in Royal Commission Medical Center (RCMC) must bear the name of RCMC and must observe the hospital policy and patient’s confidentiality.
Appendix C

Implied Informed Consent Form

Implied Informed Consent Form for Social Science Research
The Pennsylvania State University

An Examination of the Mediator influences of Work
Engagement on Turnover Intention of the Health Care Workforce among nursing practitioners in Royal Commission at Yanbu, Health Services Program in Saudi Arabia

Principal Investigator:
Meshal I Aljohani
301 Keller Building, University Park, PA 16802
Phone: 302-357-5031, Email: mia116@psu.edu

Advisor:
Dr. Judith A. Kolb
310A Keller Building
University Park, PA 16802
Phone: 814-865-1876
Email: jak18@psu.edu

Purpose of the Study: The major intent of this quantitative study will be to test the relationship between job resources and employees’ turnover intention with work engagement mediating the
relationship between them among nursing practitioners in Royal Commission at Yanbu, Health Services Program in Saudi Arabia.

**Procedures to be followed:** You will be asked to answer an electronic survey questionnaire.

**Duration:** It will take about 15 minutes to complete the survey.

**Statement of Confidentiality:** Your participation in this research is confidential. The data will be stored and secured in a password-protected file. 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. 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 Meshal Aljohani at Saudi +966597000900 or U.S. +1302-357-5031 or mia116@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 submission/return of the following 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 D

Survey Questionnaires

Work Engagement as Mediator in the Relationship Between Job Resources and Employees’ Turnover Intention

This survey is currently LOCKED to prevent invalidation of collected responses. Please unlock your survey to make changes.

Impaired Informed Consent Form for Social Science Research

The Pennsylvania State University

Title of Project:

An Examination of the relationship between job resources (i.e., supervisor support, performance feedback, autonomy, and learning opportunities) and employees’ turnover intention with work engagement mediating the relationship between them.

The concept of job resources refers to those psychological, social, or organizational aspects of the job that (a) are functional in achieving work-related goals, (b) reduce job demands and the associated physiological and psychological costs, and (c) stimulate personal growth and development.

The concept of work engagement that will be used throughout this survey refers to a positive psychological state of mind that employees have towards their work. Engaged employees are connected to their work, willing and able to invest themselves fully in their roles, and who are proactive and committed to high quality performance standards.

The concept of turnover intention refers to the probability of quitting your job.
Principal Investigator:
Meshal Aljohani
301 Keller Building, University Park, PA 16802
Phone: 502-825-5031, Email: mis116@psu.edu

Adviser:
Dr. Judith A. Kolb
310A Keller Building
University Park, PA 16802
Phone: 814-865-1870
Email: jak18@psu.edu

Purpose of the Study: The major intent of this quantitative study will be to test the relationship between job resources and employees’ turnover intention with work engagement mediating the relationship between them among nursing practitioners in Royal Commission at Yanbu, Health Services Program in Saudi Arabia.

Procedures to be followed: You will be asked 15 questions to answer an electronic survey questionnaire.

Duration: It will take about 5 to 10 minutes to complete the survey.

Statement of Confidentiality: Your participation in this research is confidential. The data will be stored and secured in a password-protected file. 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. 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 Meshal Aljohani at Saudi +9665970009900 or U.S. +1302-357-5031 or mis116@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 submission/return of the following 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.

Please if you accept to participate in the study, press an “accept to participate/continue” button to begin answering the survey questions

Accept to participate/continue
Not accept
This section is about how you feel at work. Please read the following statements carefully and decide if you feel this way at your work using the scale below. If you have never felt this feeling, indicate "0". If you had this feeling, indicate how often you feel it by selecting the number from "1" to "6".

0 = Never

1 = Almost never (a few times a year or less)

2 = Rarely (once a month or less)

3 = Sometimes (a few times a month)

4 = Often (once a week)

5 = Very often (a few times a week)

6 = Always (everyday)

At my work, I feel bursting with energy.

At my job, I feel strong and vigorous.

When I get up in the morning, I feel like going to work.

I am enthusiastic about my job.

My job inspires me.

I am proud of the work that I do.

I feel happy when I am working intensely.

I am immersed in my job.

I get carried away when I’m working.
Q2: The following statements in this section are about your autonomy in your work. Please use the scale below to indicate your level of agreement with each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My job gives me complete responsibility for deciding how and when the work is done.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>My job denies me any chance to use my personal initiative or judgment in carrying out the work.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>My job gives me considerable opportunity for independence and freedom in how I do the work.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Q3: The following statements in this section are about your learning opportunities in your work. Please indicate your answer with each statement by selecting the number from "1" to "4".

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you learn new things in your work?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Does your job offer you opportunities for personal growth and development?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Does your work give you the feeling that you can achieve something?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Does your work offer you the possibility of independent thought and action?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Q4: The following statements in this section are about Supervisor support that you received in your work. Please, indicate your answer with each statement by selecting the number from "1" to "4".

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>My supervisor/manager is concerned about the welfare of those under them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My supervisor/manager pays attention to what I am doing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My supervisor/manager pushes goals and targets in my performance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My supervisor/manager helps me get the job done.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 - Never
2 - Sometimes
3 - Often
4 - Always
The following statements in this section are about your Performance feedback that you received in your work. Please use the scale below to indicate your level of agreement with each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My job is set up so that I get consistent feedback about how well I am doing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Just doing the work required by the job provides many chances for me to figure out how well I am doing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My job itself provides very few clues about whether or not I am performing well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat or all of the time, I feel that I am losing my freedom to do things in my way.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most of the time, I feel that I am being controlled too much.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most of the time, I feel I have a say in things that affect my work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most of the time, I feel that I am given the opportunity to do the things I am good at doing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most of the time, I feel what I am doing is important.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following statement in this section is about your turnover intention. Please use the scale below to indicate your level of agreement with each statement.

I sometimes think about changing my job.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

I sometimes think about seeking work outside this organization.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Next year, I plan to change my job.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Demographic Information**

What is your gender?

- Male
- Female

What is your age?

[blank]
Nationality
- Saudi
- Non-Saudi

Salary per month (Saudi Riyal)
- Less than 5000 SR
- 5001 – 10000 SR
- More than 10000 SR
Appendix E

Recruitment Letter

Dear …………,

My name is Meshal Aljohani, and I am a doctoral candidate at The Pennsylvania State University in the U.S.A. I am conducting a study titled “Work Engagement as Mediator in the Relation Between Job Resources and Employees’ Turnover Intention Among Nursing Practitioners in Saudi Arabia.” This study is being conducted for research. In doing this study, I am in need of your participation. Thus, I would like to cordially invite you to participate in this international study. Your participation is voluntary so that you may decide whether you would agree or not to participate in the study.

As a HR professional with an experience of 5 years in human resource development, I intend to use the results of this study to add to the body of knowledge and also to share with you the outcomes of this study and its important implications to you and your practice.

Your participation will be absolutely voluntary, private, and confidential. All collected data will only be used for the purpose of the study. You may contact me at (mia116@psu.edu, 302-357-5031) at any time if you have any questions and need additional information.

Thank you.

Sincerely,

Meshal Ibrahim Aljohani

PHD Student,

The Pennsylvania State University

mia116@psu.edu

+13023575031
Appendix F

Approval to Use UWES-9 Survey Instruments

Notice for potential users of the UWES and the DUWAS

You are welcomed to use both tests provided that you agree to the following two conditions:

1. The use is for non-commercial educational or research purposes only. This means that no one is charging anyone a fee.

2. You agree to share some of your data, detailed below, with the authors. We will add these data to our international database and use them only for the purpose of further validating the UWES (e.g., updating norms, assessing cross-national equivalence).

Data to be shared:
For each sample, the raw test-scores, age, gender, and (if available) occupation. Please adhere to the original answering format and sequential order of the items.
For each sample a brief narrative description of its size, occupation(s) covered, language, and country.

Please send data to w.schaufeli@uu.nl. Preferably the raw data file should be in SPSS or EXCEL format.
Approval to Use Job Characteristic Model (JCM) Survey Instruments

The Job Diagnostic Survey developed by Hackman and Oldham (1974) is a non-copyrighted instrument that can be administered without permission of the authors (Hackman and Oldham, 1980 p. 275).
## Appendix G

### Descriptive Analysis of variables

#### Frequency Distribution for Autonomy, Performance feedback, and Turnover Intention scale items (n = 320)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>My job gives me complete responsibility for deciding how and when the work is done.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
<td>12</td>
<td>16</td>
<td>20</td>
<td>59</td>
<td>72</td>
<td>72</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>My job denies me any chance to use my personal initiative or judgment in carrying out the work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>25</td>
<td>82</td>
<td>31</td>
<td>38</td>
<td>55</td>
<td>72</td>
<td>17</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>My job gives me considerable opportunity for independence and freedom in how I do the work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9</td>
<td>25</td>
<td>25</td>
<td>24</td>
<td>61</td>
<td>138</td>
<td>38</td>
<td>320</td>
</tr>
<tr>
<td>Performance</td>
<td>My job is set up so that I get constant “feedback” about how well I am doing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>feedback</td>
<td></td>
<td>8</td>
<td>16</td>
<td>27</td>
<td>36</td>
<td>68</td>
<td>133</td>
<td>32</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>Just doing the work required by the job provides many chances for me to figure out how well I am doing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>16</td>
<td>26</td>
<td>29</td>
<td>63</td>
<td>142</td>
<td>39</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>My job itself provides very few clues about whether or not I am performing well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
<td>42</td>
<td>28</td>
<td>35</td>
<td>68</td>
<td>107</td>
<td>28</td>
<td>320</td>
</tr>
<tr>
<td>Turnover</td>
<td>I sometimes think about changing my job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>30</td>
<td>48</td>
<td>18</td>
<td>34</td>
<td>85</td>
<td>69</td>
<td>36</td>
<td>320</td>
</tr>
</tbody>
</table>
Intention
2. I sometimes think about seeking work outside this organization.

3. Next year, I plan to change jobs.

Note: Autonomy, performance feedback, and turnover intention response scale for Likert response scale items: 1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = neither disagree nor agree; 5 = moderately agree; 6 = agree; and 7 = strongly agree.

Frequency distribution of responses to Learning opportunities and Supervisor support scale items (n = 320)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning opportunities</td>
<td>1. Do you learn new things in your work?</td>
<td>3</td>
<td>46</td>
<td>108</td>
<td>163</td>
<td>320</td>
</tr>
<tr>
<td>Learning opportunities</td>
<td>2. Does your job offer you opportunities for personal growth and development?</td>
<td>10</td>
<td>52</td>
<td>117</td>
<td>141</td>
<td>320</td>
</tr>
<tr>
<td>Learning opportunities</td>
<td>3. Does your work give you the feeling that you can achieve something?</td>
<td>11</td>
<td>43</td>
<td>115</td>
<td>151</td>
<td>320</td>
</tr>
<tr>
<td>Learning opportunities</td>
<td>4. Does your work offer you the possibility of independent thought and action?</td>
<td>15</td>
<td>48</td>
<td>125</td>
<td>132</td>
<td>320</td>
</tr>
<tr>
<td>Supervisor Support</td>
<td>1. My supervisor/manager is concerned about the welfare of those under them.</td>
<td>20</td>
<td>72</td>
<td>122</td>
<td>106</td>
<td>320</td>
</tr>
<tr>
<td>Supervisor Support</td>
<td>2. My supervisor/manager pays attention to what I am saying.</td>
<td>19</td>
<td>73</td>
<td>117</td>
<td>111</td>
<td>320</td>
</tr>
<tr>
<td>Supervisor Support</td>
<td>3. I am exposed to hostility from my supervisor/manager.</td>
<td>96</td>
<td>81</td>
<td>85</td>
<td>58</td>
<td>320</td>
</tr>
<tr>
<td>Supervisor Support</td>
<td>4. My supervisor/manager is helpful in getting the job done.</td>
<td>19</td>
<td>65</td>
<td>115</td>
<td>121</td>
<td>320</td>
</tr>
</tbody>
</table>
Note: Autonomy, performance feedback, and turnover intention response scale for Likert response scale items: 1 = Never; 2 = Some; 3 = Often; and 4 = Always.

**Frequency distribution of responses to Work engagement sub scale items (n = 320)**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vigor</td>
<td>1. At my work, I feel bursting with energy.</td>
<td>14</td>
<td>12</td>
<td>20</td>
<td>65</td>
<td>45</td>
<td>81</td>
<td>83</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>2. At my job, I feel strong and vigorous</td>
<td>4</td>
<td>12</td>
<td>12</td>
<td>39</td>
<td>48</td>
<td>90</td>
<td>115</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>3. When I get up in the morning, I feel like</td>
<td>6</td>
<td>9</td>
<td>14</td>
<td>34</td>
<td>44</td>
<td>101</td>
<td>112</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>going to work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dedication</td>
<td>1. I am enthusiastic about my job.</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>34</td>
<td>39</td>
<td>90</td>
<td>143</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>2. My job inspires me.</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>29</td>
<td>39</td>
<td>83</td>
<td>151</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>3. I am proud of the work that I do.</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>7</td>
<td>29</td>
<td>62</td>
<td>213</td>
<td>320</td>
</tr>
<tr>
<td>Absorption</td>
<td>1. I am enthusiastic about my job.</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>30</td>
<td>51</td>
<td>89</td>
<td>134</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>2. My job inspires me.</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>23</td>
<td>46</td>
<td>111</td>
<td>122</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>3. I am proud of the work that I do.</td>
<td>15</td>
<td>8</td>
<td>16</td>
<td>42</td>
<td>60</td>
<td>103</td>
<td>76</td>
<td>320</td>
</tr>
</tbody>
</table>

Note: Work engagement sub scale items response scale for Likert response scale items: 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; and 7 = strongly agree; and 6 = Every day.
Scatter Plot of Relationships between work engagement dimensions and turnover intention:

Scatter Plot of Relationships between Job resources and turnover intention:
CURRICULUM VITA

MESHAL ALJOHANI

Profile

I am an enthusiastic, adaptive and fast-learning person with a Ph.D. degree in Workforce Education and Development (WFED), specializing in HRD/OD. I graduated with 3.94 out of 4.00 from the Pennsylvania State University. Possesses relevant professional experience gained during my previous 8 years of experience with multinational businesses, acquiring valuable insight into teaching and technical skills. I'm looking to become an asset faculty and researcher to your prestigious and reputable university.

Regards.

Contact Information
Email
m.aljohani@gmail.com
Phone
+1-302-357-5031

EDUCATION

PH.D.: WORKFORCE EDUCATION AND DEVELOPMENT
PENNSYLVANIA STATE UNIVERSITY | 2014 - 2018
GPA: 3.9 OUT OF 4.00

MASTER OF SCIENCE: HUMAN RESOURCES DEVELOPMENT
PITTSBURGH STATE UNIVERSITY | 2007 - 2009

B.S. OF SCIENCE: MARIN PHYSICS
KING ABDULAZIZ UNIVERSITY | 1998 - 2002

ENGLISH DIPLOM TEACHING ELEMENTARY SCHOOL
TEACHER COLLEGE | 2004 - 2006

EXPERIENCE

RECRUITMENT / SPECIALIST
ROYAL COMMISSION MEDICAL CENTER | JANUARY 2010 - DEC 2013

HR MANAGER
HOME JEDDAH FOR INVESTMENT AND REAL ESTATE DEVELOPMENT | APR 2004 - JAN 2006

ENGLISH TEACHER (INTERNSHIP)
MIQDAD BIN AMR ELEMENTARY SCHOOL | AUG 2006 - MAY 2006

FRONT OFFICE SUPERVISOR
ANWAR AL MADINAH MOVENPICK HOTEL | DEC 2003 - DEC 2004

RESERVATION SUPERVISOR
AL SAHA AL SAFIR HOTEL | APR 2002 - DEC 2003

SKILLS

- Teaching Skills and classroom management skills
- Creative lesson planning
- Purposeful lesson planning
- Manage a project or projects from beginning to end
- Assessing & Diagnosing OD.
- Training Programs Assessment, Planning & Understand and synthesize large quantities of data Evaluation.
- Organization Change & Development Intervention.

TRAINING & CERTIFICATION

- Office Management (Nov 28 - 30, 2011).
- Customer Services and Quality Improvement (June 4-7, 2011).
- Effective Communication skills (Oct 9 - 11, 2010).
- Lean of Six Sigma - Green Belt (Nov 30, 2013 - Dec 1, 2013)

CONSULTATION EXPERIENCE

- Participation in a consulting project for the Penn State Talent Search Program to help an organization effectively implement an organizational development (OD) change effort.
- Participation in an intervention developed for the Pennsylvania Black Conference on Higher Education

REFERENCES AVAILABLE UPON REQUEST