

May 2019

Factors Associated with Turnover Intention Among Newly Graduated Nurses

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FACTORS ASSOCIATED WITH TURNOVER INTENTION AMONG SAUDI NEWLY
GRADUATED NURSES

by

Shaherah Andargeery

A Dissertation Submitted in
Partial Fulfillment of the
Requirements for the Degree of

Doctor of Philosophy
in Nursing

at

University of Wisconsin-Milwaukee

May 2019

ABSTRACT

FACTORS ASSOCIATED WITH TURNOVER INTENTION AMONG SAUDI NEWLY GRADUATED NURSES

by

Shaherah Andergeery

The University of Wisconsin-Milwaukee, 2019

Under the Supervision of the Associate Professor AkkeNeel Talsma, PhD, RN, FAAN, Walter Schroeder Chair for Nursing Research

Saudi Arabia faces many challenges to retain experienced and newly graduated nurses (NGNs), similar to Western and Asian countries. The turnover rate of Saudi nurses has reached 50% (Abu Zinadah, 2006) and about 38% out of 172,483 nurses are Saudi (MOH, 2017). Turnover needs to be urgently addressed to secure the future supply of nurses for Saudi Arabia. Despite government efforts to address the workforce shortage, turnover has increased. Research shows that job stress, work environment satisfaction, preceptorship experience, and role conflict and ambiguity are key factors that contribute to turnover intention. It is important for policymakers and nurse leaders to understand the factors (personal and systems) that lead nurses to leave the workforce.

The purpose of this study is to examine the association between nursing characteristics, job stress, role conflict and ambiguity, preceptorship experience, work environment satisfaction, and turnover intention among Saudi NGNs. The study featured an exploratory correlational design to survey a convenience sample of n=238 Saudi NGNs during the summer of 2018. Participants have the Saudi nationality, graduated within the past five years, with less than three years of work experience, and work in one of the hospitals in Jeddah or Makkah, Saudi Arabia affiliated with the Ministry of Health. All instruments were translated into Arabic and appropriately tested prior to conducting the study.

Results of the study indicated that role conflict and ambiguity are strong predictors of turnover intention. Work environment satisfaction was a common predictor of turnover intention. The findings align with similar studies in other countries. Job stress and positive preceptorship experience were indirectly correlated with turnover intention. Future studies will focus on addressing role conflict and ambiguity, enhancing work environment satisfaction for NGNs, and determine optimal preceptor relationships. Research focused on other parts of Saudi Arabia as well as non-Saudi born nurses will provide further understanding of the factors associated with turnover intention among Saudi NGNs.

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LIST OF ABBREVIATIONS

GANA	The General Administration of Nursing Affairs
NGNs	Newly Graduated Nurses
NISs	Nursing Intern Students
KSA	Kingdome of Saudi Arabia
MOH	The Ministry of Health
SCFHS	The Saudi Commission for Health Specialist
PI	Principle Investigator
IRB	the Institutional Review Board
UWM	the University of Wisconsin-Milwaukee
CVI	Content Validity Index
VIF	Variance Inflation Factor

ACKNOWLEDGMENTS

First and foremost, all prayers and thanks to Allah for empowering me, enabling me to complete this dissertation, and accomplish one of my biggest dreams.

I would like to dedicate my dissertation to the soul of my father who was the first person who inspired me to be a doctor, called me Dr. Shaherah when I was in the middle school, and encouraged me to pursue my education. I always remember him when I feel down to push myself harder and achieve his dream. He would be so proud of my accomplishment. I would like to dedicate this dissertation to all my family members, especially to my sons “Yousef and Rayan”, and my daughter “Ellen”. My kids may not understand what I was doing and why I was doing it, but I hope they are elated that I completed what I set out to do for them. Accomplishing this degree would not be possible without the encouragement, support, reassurance, prayers, and endless love of my mom “who she became our parents, gave us the trust, freedom to take our decisions to reach to where we are”, my husband “Raed” who taught me to be a strong and independent woman and fight against the difficulties”, my sister, my brothers, my relatives, and all of my friends.

I would like to extend my sincere thanks and gratitude to my friends: Dr. Lisa Babkair, Dr. Hanan Badr, Dr. Moudi Albargawi, Salwa Maghrabi, and Ali Kariri, who helped me tremendously with their knowledge and shared with me all the successes and difficulties of this journey. A special thanks to my friends Duaa Alawadi, Arwa Alsiyami, Dr. Maram Banakhar, Shahad Hafiz, Fatin Alfifi, and Sarah Bogshan.

I started this journey working with Dr. Aaron Buseh, whom I would like to recognize and for his vision and confidence in undertaking these studies. I would also like to express my sincere gratitude to my major advisor, Dr. AkkeNeel Talsma. I have always appreciated her wisdom and

knowledge of my research topic, offering her perspectives and sharing her worthy experiences with research, and her fruitful guidance, encouragement and always support. I want to express my deepest thank my committee members Dr. Kim Litwack, Dr. Julia Snethen, and Dr. Romila Singh for their valuable insights and sincere guidance.

This work was supported by funding awarded through the Graduate Student Research Grant, Sigma Theta Tau International, Eta Nu Chapter, University of Wisconsin-Milwaukee and the Harriet H. Werley Award for Nursing Research 2018 from the Research Committee of the College of Nursing, The University of Wisconsin - Milwaukee. I greatly appreciate the support towards completing my studies.

Chapter I: Introduction and Background

Introduction to the Problem

Nurses play a significant role in the healthcare industry. They represent the first line of health care providers because they spend time and effort on patients and support people in need of health improvement. The quality and quantity of health care providers are associated significantly with health care outcomes (Yip et al., 2012). In terms of quality, the scarcity of qualified health care providers, especially nurses, is a barrier to improving health goals and well-being (Wong et al., 2015). In terms of quantity, the difficulty of recruiting and retaining nurses in health care organizations is occurring on a global scale and has become the most common concern facing both developed and developing countries.

The nursing profession is further being challenged by the retirement of its aging workforce, difficulties in recruiting experienced and qualified nurses, and problems retaining existing nursing personnel (Buerhaus et al., 2007). The increased nurse vacancy rate and decreased recruitment and retention of experienced nurses has added more pressure to attracting newly graduated nurses (NGNs) to health care organizations as they have become the largest source of nurses available for recruitment. However, the supply of NGNs is unlikely to meet the workforce demand. Although the projected number of nurses is slightly increasing, the number of retiring nurses and nurses who will leave their workplace and the profession exceeds the number of graduate nurses (HRSA, 2004).

Nurse turnover continues to be a critical challenge faced by several countries, such as the United States, Canada, Belgium, Finland, Iran, Taiwan, South Korea, China, and Japan. Researchers have reported that approximately 20% of Canadian nurses of all ages leave their workplace during the first year of their employment (O'Brien-Pallas, Murphy, Shamian, Li, &

Hayes, 2010). In the United States, the nursing turnover rate was reported to be 17.2% (Nursing Solutions, 2015). According to the U.S. Department of Labor, Bureau of Labor Statistics (2014), the number of nurses projected to retire or leave the nursing profession will reach 555,100 in 2022. However, at the same time, the total number of new nurses needed to replace them will be 1.13 million. Inadequate support for recruiting new nurses, a lack of planning strategies by human resources, and increased alternative career opportunities will further decrease the supply of nurses (Leong, 2012; Wong et al., 2015). These increased turnover rates will lead to an increased burden on health care organizations and reduced safety and quality of care. This turnover will also decrease the continuity of nursing care and negatively affect patient outcomes (Wang & Yuan, 2018).

Vigoda-Gadot and Ben-Zion (2004) defined turnover intention as the desires of or attempts by employees to leave their existing workplace voluntarily. Researchers have suggested that the construct of turnover intention may be viewed as an immediate antecedent or mediator variable in place of the actual employee turnover rate (Takase, 2010). Turnover intention is more likely to be caused by a range of factors. Factors attributed to turnover intention are organizational factors, work-related factors, employee factors, and external factors (Takase, 2010). Organizational factors can include a lack of organizational support, a deficit in professional growth, organizational commitment, and weak relationships with supervisors, colleagues, or interdisciplinary health care providers. Work-related factors can include the increased role of stress and workload, lack of autonomy and financial rewards, and negative characteristics of work conditions (Bria et al., 2013; Flinkman et al., 2010; Hayes et al., 2012). Employee factors refer to the demographic characteristics of the employee, job performance, self-efficacy, job satisfaction, home-life obligations, stress, and burnout. Turnover intention can

also be attributed to external factors. These factors include work–life balance and availability of external job opportunities (Amstad, Meier, Fasel, Elfering, & Semmer, 2011).

Although it is a wealthy country, Saudi Arabia faces many challenges to retaining experienced NGNs, similar to the nursing challenges faced in Western countries. The expansion of health care facilities in response to the growing population will increase the need for more professionally trained nurses, especially NGNs, to meet Saudi Arabia’s health care demands. In 2017, there were 57 nurses per 10,000 population; the Ministry of Health needs 150 nurses per 10,000 by 2020 to reduce the nursing shortage gap (National Transformation Program, 2015). The reality of the increasing nursing shortage, which is fueled by the retirement of experienced nurses, is also compounded by the increased turnover of newly qualified nurses. This has created an urgent need for the government to develop strategies that can help improve projections regarding the future supply of nurses while increasing the retention of current nurses. In this process, it is critical for policymakers and nurse managers to gain an understanding of the factors (personal and systems) that lead nurses to leave the workforce early (Bria et al., 2013; Flinkman et al., 2010; Hayes et al., 2012).

Statement of the Problem

NGNs contribute significantly to the nursing workforce. Health care systems depend greatly on this group of workers to offset nursing shortages and fill the gaps that have resulted from the limited number of experienced nurses, the retirement of aging nurses, and the expansion of health care facilities (Huntington et al., 2011; IOM, 2011; Ritter, 2011; Saintsing, Gibson, & Pennington, 2011; Trepanier, Early, Ulrich, & Cherry, 2012). Indigenous nurses (36.7% of the total 185,693 nurses), who are knowledgeable about family, social, and cultural issues, are better able to provide culturally and socially sensitive and linguistically competent health care to the

Saudi population (International Council of Nursing, 2011). Increasing the acuity and complexity of patient health conditions and new emerging health care technologies have increased the demands on NGNs (Park & Jones, 2010). Consequently, recruiting and retaining NGNs has become a serious issue for health care administrators and human resource and nursing managers worldwide (International Council of Nurses, 2006; World Health Organization, 2006).

The Saudi Arabian government implemented several strategies to address workforce shortages, specifically to the nursing workforce. The number of Saudi nurses who are graduating from national and international nursing programs has slightly increased, and the number of those who are seeking employment in Saudi Arabia has increased accordingly. Despite these efforts, the turnover intention issue has been raising among this population (Al-Homayan, Islam, Shamsudin, & Subramaniam, 2013). There are several challenges that Saudi NGNs face, which can contribute to their intent to leave their place of employment. The major challenges will be discussed in the following sections.

Education System Challenges

National and international nursing education programs have different curricula and standards that are based on social, political, and cultural climates (Leffers et al., 2017). There is a diverse set of preparations required for NGNs to reach the requisite standard to become registered nurses and enter the nursing workforce. The differences among nursing's educational systems result in increasing the challenges for indigenous nurses who must be accountable and culturally competent to provide appropriate nursing care for the Saudi population. Evidence has shown that the majority of the Saudi NGNs have an incomplete understanding of the complexities of the population, health, and nursing itself (Fielden, 2012).

In addition, critics from other countries have argued that nursing education programs are too far from the practice setting and prepare nursing students with the ideal instead of the reality of nursing practice (Romyn et al., 2009; Wolff, Regan, Pesut, & Black, 2010). They also claim that an education-practice gap between the educational sector and the health care clinical practice sector has created a discrepancy between nursing education and the expectations of graduate performance (Strauss et al., 2016; Wolff, Pesut, & Regan, 2010). The lack of communication and shared responsibility between these sectors has contributed to the increased education-practice gap (Newton & McKenna, 2007). NGNs must be prepared to work as competent, and innovative health care professionals in a continuously changing health care situation.

Internship Issues

The internship program is an important period for all Saudi nursing intern students (NISs) to master their own clinical skills and develop experience in real situations (Clinical Affairs Unit, 2017). It is an important stage because it is here where Saudi NISs plan and make decisions about their future specialty area of work. During the internship program, NISs work as observers of care. They rely on their preceptors when they make nursing decisions as well as when they perform nursing actions (Fielden, 2012). They depend on preceptors to answer their questions, provide guidance, ease stress, and reduce their knowledge gaps. According to Fielden (2012), NISs pay little attention to patients' needs; they focus on providing routine care and following policy and procedures that serve as a guide for their practice.

Saudi NISs may be exposed to various learning experiences and have a diverse degree of familiarity with everyday practices as they participate in health care facilities. Nursing faculties are challenged to provide realistic experiences that prepare NISs for the real world of nursing because of their limited opportunities to work in clinical practice settings (Kaplan & Ura, 2010;

Morrell & Ridgway, 2014; Villanueva-Whitman, 2014). From personal experience, I can state that many hospitals accept limited numbers of Saudi NISs to do clinical rotations during their internship. Therefore, NISs are provided unequal or inadequate opportunities to practice certain skills, develop clinical competencies, and care for multiple and complex patients (Cheng et al., 2014; Kaplan & Ura, 2010).

According to Fareed (2017), some Saudi NISs had high expectations to work in the future as staff nurses, whereas, in reality, they were neither able to participate in developing treatment plans nor provide care for patients. During a personal communication in 2017, a faculty member in the college of nursing at King Abdul-Aziz University mentioned that the preceptors are not ready for Saudi NISs. There is a lack of trust in assigning patients and delegating care to Saudi NISs (Fareed, 2017). As a Saudi NIS, I can ascertain that there is no chance to develop knowledge and skills and no social support from the preceptors during the internship period. Preceptors usually delegate technical or routine tasks that do not require a holistic perspective or high degree of competence, such as taking vital signs, inserting IV cannulas, drawing blood for tests, accompanying patients to additional diagnostic procedures, or transferring patients to other areas. In addition, NISs rotate in a short period through several clinical areas, where several preceptors, who possess different teaching and personality styles, are assigned to them. Saudi NISs are given few opportunities to practice with complex patient conditions and in complex or emergency clinical situations (Fareed, 2017). Thus, Saudi NISs might not be able to handle complex and emergency situations independently.

Transition Into Clinical Practice Issues

The transition of NGNs into clinical practice is described as extremely stressful and difficult. NGNs feel stressed and overwhelmed at the early stage of their transition because of an

increase in the demanding roles and high job expectations in regard to the standard of care (Cho, Lee, Mark, & Yun, 2012; Wu et al., 2012). NGNs continue to experience reality shock during this period because of their unfamiliarity with certain situations, fear of making mistakes, increased workload, and the complexity of the health care environment (Jones-Bell et al., 2014; Kaddoura, Van-Dyke, & Yang, 2016; Missen, McKenna, & Beauchamp, 2014; Park & Jones, 2010; Pfaff, Baxter, Jack, & Ploeg, 2014). Other challenges that NGNs can face include inadequate clinical and/or theoretical preparation, increased organizational demands, difficulties with socialization, lack of support systems, poor communication with the health care team's members, and lack of essential resources (Hayman-White et al., 2007; Laschinger, 2010; Laschinger & Grau, 2012; MacKusick & Minick, 2010; Parker et al., 2014).

Saudi NGNs struggle with uncertainty and fear due to their perceived expectations and the actual expectations of the job (Fareed, 2017). Saudi NGNs experience difficulties because their role has changed from being students to being staff nurses. Developing competence and confidence for the provision of safe patient care can be the most difficult aspect of NGNs' transition into clinical practice (Hodges, Keeley, & Troyan, 2008). Additional challenges include role ambiguity and an increase in the sense of individual accountability and responsibility (Christmas, 2008; Ho, Chang, Shin, & Liang, 2009). NGNs are required to care for patients independently while receiving limited guidance from nursing supervisors in a highly stressful environment. Although NGNs try to make autonomous decisions and function independently as professional nurses, they struggle with feeling dependent on others.

The first year of nursing practice is a time for learning, adjusting, and socializing into a new workplace; NGNs are expected to immediately fit into their new roles and take on multiple responsibilities. NGNs are required to integrate theoretical and practical knowledge and develop

clinical competence as they transition into clinical practice (Philips, Esterman, & Kenny, 2015). NGNs might take on demanding roles without adequate preparation and training. Evidence has shown that many NGNs possess insufficient knowledge and skills to think critically and make appropriate decisions (Zori, Kohn, Gallo, & Friedman, 2013). They need to think critically and make appropriate decisions to recognize abnormal physical and diagnostic findings and to evaluate complex situations in their clinical practice (Sorensen & Yankech, 2008). NGNs have difficulty thinking about organizing patient care in a holistic and systematic way. Other difficulties include the identification of patients' needs and potential problems, the establishment of care goals, the identification of care options, and evaluating the impact of nursing care on patients' conditions in regard to health outcomes (Fielden, 2012). Findings have shown that many NGNs possess a limited ability to think in a reflective or anticipatory way to make proper conclusions about patient care needs and delivering nursing care or to address problems in a logical way (Fielden, 2012). NGNs can experience a difficult adjustment to the new nursing environment and consider leaving the profession during the first year of practice (Cho et al., 2012; Duchscher, 2009; Wu et al., 2012; Yeh & Yu, 2009).

As indicated in most of the studies, the main factor that contributes to the turnover intention of NGNs is the preceptorship experience (Luhanga, Dickieson, & Mossey, 2010; Raines & Lynn, 2009; Spiva et al., 2013). The most cited hindrance to the development of clinical skills and competence is having different preceptors, depending on the nurses' shifts (Sandau, Cheng, Pan, Gaillard, & Hammer, 2011). Sandau et al. (2011) noted that NGNs who had three to four preceptors reported the highest level of satisfaction with their preceptors, whereas having too many preceptors led to NGN dissatisfaction (Sandau & Halm, 2011). The problems described by NGNs include lack of consistency in learning and receiving fragmented

preceptoring when under the direction of multiple preceptors (Myers et al., 2010; Sandau et al., 2011; Sandau & Halm, 2011). NGNs can have increased feelings of insecurity and doubt if more than one preceptor is involved in their learning process. Many NGNs also mentioned that differing coaching styles, personality differences, and inconsistencies among their various preceptors slowed down their critical thinking and decision-making abilities (Kaddoura, 2013; Myers et al., 2010; Sandau & Halm, 2011). Other barriers related to preceptors include personality or intergenerational differences and barriers to change (Myers et al., 2010).

Another barrier reported by NGNs is preceptors taking dominant control and asserting too much power over patient care (Kaddoura, 2013). NGNs reported negative preceptorship experiences because their preceptors did not actively engage them in active dialogue to make decisions related to nursing care or not giving them time to examine their insights to solve patient problems (Forneris & Peden-McAlpine, 2007, 2009; Kaddoura, 2013). Thus, the quality and roles of the preceptors could contribute to or hinder NGNs' decisions to consider staying or leaving their positions in their first years of employment.

The main barriers to NGNs' making independent decisions thus include not feeling confident, having a heavy patient workload (Myers et al., 2010; Sandau & Halm, 2011), and lack of time to ask questions and receive feedback. Not holding discussions or communicating with others were other barriers to independent decision-making (Forneris & Peden-McAlpine, 2009; Myers et al., 2010; Sandau et al., 2011). Another barrier that negatively influenced the preceptorship experience, as indicated by Myer et al. (2010), relates to staffing issues, such as mismatching the schedules of preceptors and new staff nurses (because they have either 8- or 12-hour shifts), rotating shifts, or preceptors' vacation time.

Experienced staff nurses expressed their unwillingness to work with Saudi NGNs (Fielden, 2012). The experienced nurses reported having heavy workloads and job demands to meet patients' needs because of the nursing shortage in Saudi Arabia. Because of the shortage, experienced nurses need to work long hours under stressful circumstances (Lee, Lim, Jung, & Shin, 2012). They consider the lack of experience, knowledge, skills, and confidence among Saudi NGNs to be a major challenge (Kaddoura et al., 2016; Missen et al., 2014; Pfaff et al., 2014). The experienced nurses also reported that teaching and supervising NGNs requires a major allocation of time and creates an additional workload (Almalki, FitzGerald, & Clark, 2011). NGNs in this situation receive limited support as they transition into practice, and they reported that the orientation and support provided by experienced nurses did not meet their developmental needs (Fareed, 2017). These issues could influence the recruitment and retention of NGNs, as well as affect the development of their competencies in their first years of practice.

Generally, most hospitals set a predetermined time for nursing orientation that varies in length based on the health care facilities and the unit of employment. However, NGNs may not be sufficiently prepared to practice independently because they are allotted a limited amount of time during nursing orientation. NGNs reported the length of short orientation programs as causing a major struggle for them, which may influence the NGN retention rate (Gerrish, 2000; Scott et al., 2008; Squires, 2002). Shorter orientation periods may not provide sufficient time and support for NGNs to adjust to their new jobs. Evaluations of the orientation programs suggested that a minimum of 12 weeks is needed for the successful transitioning of NGNs (Kramer, Brewer, & Maguire, 2013; Salt et al., 2008). Researchers noted that the transitioning of NGNs can take from 18 months to 2 years of employment after graduation (Hoffart, Waddell, Cnor, & Young, 2011; McKenna & Newton, 2008; Schoessler & Waldo, 2006). The highest levels of

stress, as well as the lowest job satisfaction and organizational commitment levels, were reported by NGNs between 6 and 9 months after the onset of employment (Rush et al., 2013). Therefore, the length of the orientation should be taken into account to reduce the turnover intention of NGNs.

Transitioning NGNs into the nursing workplace requires time for adjustment to the new role, the development of identity and confidence, and becoming familiar with the clinical practice environment (Dyess et al., 2009). Recruiting and retaining NGNs becomes critical to filling current vacancies, ensuring an adequate supply of nurses to meet the health care demands of the Saudi population. The retention of NGNs under these circumstances becomes quite challenging. It is not surprising that NGNs who face these challenges consider leaving their jobs or the nursing profession entirely during their first years of employment (Ashton, 2015; Flinkman et al., 2010; Hewit et al., 2013; Simon et al., 2010; Twibell et al., 2012). Therefore, it is important to understand why NGNs intend to leave their positions and the factors that contribute to their turnover intention in Saudi Arabia.

The Prevalence of the Problem

Several studies have found that NGNs had a higher intention to leave the profession compared to other nurses (Cheng, Tsai, Chang, & Liou, 2014; Oermann & Garvin, 2002). Unfortunately, many NGNs leave their jobs within the first few years of their employment. Internationally, the percentage of nurses who reported their intention to leave the profession across countries varied from 4% to 54%. In a study conducted in 10 European countries, the authors found that 13% of nurses reported their intention to leave the profession (Camerino, Estryn-Behar, Conway, Van Der Heijden, & Hasselhorn, 2008). In another study, conducted in the United States and 12 European countries, the turnover intention rates of nurses ranged from

14% to 49% in the United States (Aiken, Sloane, Bruyneel, Van Dan Heede, & Sermeus, 2013). In Shanghai, China, 40.4% of nurses intended to leave their current place of employment (Liu et al., 2011); furthermore, around quarter (17.2%) of NGNs (57 out of 343) reported their intention to leave their career immediately after their employment began.

In the United States, 30% of nurses considered leaving their positions in the first year of practice (Twibell, Pierre, & Johnson, 2012). Similarly, the International Council of Nurses (2015) estimated that 32% of nurses in Denmark, 26% in New Zealand, and 28% in Taiwan considered leaving their positions in the first year of employment. The turnover intention rate increased from the baseline to 59.6% (187) at the 4th month, 74.4% (233) at the 8th month, and 71.8% (208) at the 12th month in China (Zhang, Wu, Fang, Zhang, & Wong, 2017). According to Brewer et al. (2012) and Kovner, Brewer, Fatehi, and Jun (2014), between 17.5% and 26% of NGNs had left their first job within 2 years of employment. However, between 33.5% and 43% had left the nursing positions within 3 years.

In Saudi Arabia, not all NGNs enter the nursing field, and 50% of them leave the nursing profession annually (Abu Znadeh, 2007). According to the Saudi Arabian Ministry of Health's (MOH) statistics, in 2016, the total number of nurses working across all health care sectors in Saudi Arabia was 189,821, of which 36.5% were Saudis. There are 57 nurses per 10,000 members of the population. The total number of students who attended public nursing colleges and universities in 2016 was 8,530; of these, 8,410 were Saudi—1,415 males and 6,995 females (MOH Yearly Statistical Book, 2016). Despite the fact that the supply of local nurses has slightly increased over the past few years, the demand for nurses is high because the number of new graduates from the nursing programs and the retention rates of this population remain low. The number of graduates from nursing colleges and universities in 2016 was 1,236, of which 1,215

were Saudi (220 males and 995 females). According to Abu Zinadah (2010), the turnover rate of Saudi nurses reached 50% of the total number employed in Saudi Arabia. Abu-Zinadah (2006) noted that it would take 25 years to supply the profession with local nurses to constitute 40% of the required nursing workforce in Saudi Arabia. The high turnover intention of NGNs to leave the workplace is an indicator of a greater probability of early turnover (Takase, 2010). Replacing nurses who retire or leave the nursing workforce becomes important, yet it is challenging and costly. In this circumstance, there is a need to understand the factors that contribute to NGN turnover intention to develop interventions to retain the current nursing workforce and address the issue of nursing turnover, especially among NGNs.

Significance of the Problem

In Saudi Arabia, the total number of nurses was 185,693, and only 36.7% were Saudi (Annual Statistical Book, 2017). As mentioned earlier, 50% of NGNs leave the nursing profession annually (Abu Znadeh, 2007). The NGNs who leave entry-level positions within 3 years increase the vacancy rate. The high turnover rate among NGNs remains problematic for health care managers due to its influence on the quality and safety of patient care (Bae, Mark, & Fried, 2010). According to Candela and Bowles (2008) and Kovner et al. (2007), the ability of health care organizations to provide quality and cost-effective patient care is negatively affected by the 30% to 60% turnover rate among NGNs. Their turnover intention displays early signs of a desire or a plan to leave the position. Thus, investigating health care organizations to determine the factors that could lead to turnover intention is more cost-effective than investigating their actual turnover behavior (Hayes et al., 2012; Murrells et al., 2008).

Financial Influences

The financial losses incurred by nurses who leave an organization during the first years of practice were estimated at \$60,000 to \$88,000 per each new graduate nurse in the United States (Jones & Gates, 2007; Ulrich et al., 2010). Health care organizations are affected by the turnover costs associated with advertising for new positions, higher level of recruitment, supervising, replacing nurses, the orientation process, the training of new nurses, and vacancies (Lee et al., 2009; The Lewin Group, 2009). The RN Recruitment Difficulty Index revealed that recruiting another nurse could take up to 3 months, which adds a financial burden to health care facilities. An additional \$359,650 was estimated as the cost for each percentage increase in RN turnover (Nursing Solutions, 2015). This financial burden can exacerbate the problems on healthcare organizations if NGNs continue to leave their positions. The cost savings from retention are estimated to be 1.5 to 2 times a nurse's salary (Friedman, Cooper, Click, & Fitzpatrick, 2011). These financial resources could be directed toward quality improvement programs, nurse retention, and staff development activities.

Quality of Care and Safety Influences

The intention to leave a place of employment is a significant indicator of actual turnover behavior (Takase, 2010). Workforce stability is threatened by the increased turnover rates among NGNs because it worsens the nursing shortage and magnifies the need for nurses. Turnover places a larger workload burden on the remaining nurses who are available to care for patients (Lambert et al., 2012). This nurse turnover can increase absenteeism and the time and resources required to manage vacated positions while decreasing nurse morale, efficiency, productivity, and retention (Abualrub & Alghamdi, 2012; Lambert et al., 2012). This, in turn, decreases nurses' overall job satisfaction (Duffield, Roche, O'Brien-Pallas, & Catling-Paull, 2009;

Lambert et al., 2012) and affects nurses' willingness to remain in the profession (The American Association of Colleges of Nursing, 2012).

Turnover negatively affects the delivery of safe and quality care to patients (Needleman et al., 2011; Zhu et al., 2012). Inadequate staffing causes a high patient-to-nurse ratio. Inadequate staffing leads to poor quality of care and increases in the accident rate, the risk of injuries, infections, falls, and medication errors (Lamadah & Sayed, 2014; Moore, 2014; Needleman et al., 2011). More than 40% of NGNs report that they are unprepared to keep patients safe from harm and that they commit medication errors due to their inability to recognize complications and intervene in life-threatening situations (O'Keeffe, 2013).

Additionally, inadequate staffing reduces contact time with patients and interrupts the effectiveness of the care administered to patients (Buchan, 2010; Cottingham, DiBartolo, Battistoni, & Brown, 2011; Ford, 2011). Patients who receive shorter and inadequate personal care and services can feel dissatisfied with the care they receive (Lambert et al., 2012). Thus, a failure to retain NGNs can significantly impact patient satisfaction and patient outcomes (Abualrub & Alghamdi, 2012).

Increases in the attrition rate of NGNs aggravate the nursing shortage issue. Therefore, health care organizations/institutions should focus on addressing the factors affecting NGNs as they transition into professional nursing roles and offer support to increase their job satisfaction and commitment to the profession. This would also prevent or reduce the nursing profession's turnover, especially during nurses' first years of employment (Laschinger, 2012). A successful transition of NGNs would have a high impact on enhancing patient safety and outcomes while reducing the financial costs that result in turnover and medical errors (Strauss, Ovnat, Gonen, Levi-Ari, & Mizrahi, 2016).

The Purpose of the Study

The purpose of this study was to examine the factors associated with turnover intention among Saudi NGNs in multiple health care organizations located in Jeddah and Makkah, Saudi Arabia. In other countries, such as the United States and China, evidence has shown that managing job stress, enhancing the role of preceptors, and work environment satisfaction all have been particularly significant for preventing/reducing NGNs from leaving their workplace. Similar results have not been found in Saudi Arabia. It has yet to be determined whether Saudi NGNs have the same needs for support and structure during their transitions to the workforce. There is a striking lack of research that investigates attrition and retention, as well as the reasons why Saudi NGNs leave the profession. The underlying factors regarding turnover intention among Saudi NGNs require exploration and comprehension prior to the development of recruitment and retention solutions and strategies.

Significance of the Study

This study adds to the nursing profession's knowledge of turnover intention, especially among Saudi NGNs who are working with less than 3 years of experience. The results of this study would be useful in understanding the factors that promote retention and influence the turnover intention of Saudi nurses who have recently graduated from nursing programs. This study provides empirical research on the attributes of turnover intention in several governmental hospitals located in Jeddah and Makkah, Saudi Arabia. Additionally, the findings are helpful in designing an intervention plan aimed at addressing turnover intention among new or transferred nursing staff. This study is the first of its kind to examine the factors that affect Saudi NGNs' turnover intention, including nurses' characteristics, job stress, role conflict and ambiguity, the preceptorship experience, and work environment satisfaction. The findings of this study could

provide feasible recommendations for enhancing retention and reducing the turnover rate, not only among NGNs but also among nurses who are new to these organizations. The findings could also be used to determine whether solutions utilized in other countries can work in Saudi Arabia. Retaining Saudi NGNs in the nursing workforce could help in the delivery of safe, high-quality, cost-effective, and culturally sensitive patient care. The existing literature covers turnover intention in the United States as well as Asian and Western countries, yet little is known about Saudi Arabia. However, the problems that have been identified on other continents are also prevalent in Saudi Arabia; therefore, it is important to conduct a study to understand the specific factors that contribute to Saudi NGNs' turnover intention and to further investigate this issue in Saudi Arabia.

Research Questions

- 1.a. What are the characteristics of Saudi NGNs?
- 1.b. What is the perception of job stress of Saudi NGNs?
- 1.c. What is the perception of Saudi NGNs regarding the preceptorship experience?
- 1.d. What is the perception of work environment satisfaction among Saudi NGNs?
- 1.e. What is the perception of Saudi NGNs regarding role conflict and role ambiguity?
- 1.f. What is the perception of turnover intention of Saudi NGNs?
- 2.a. What are the associations among job stress, role conflict and ambiguity, the preceptorship experience, and work environment satisfaction?
- 2.b. What are the associations among job stress, role conflict and ambiguity, the preceptorship experience, and work environment satisfaction in regard to turnover intention?
- 3.a. What are the associations among nursing characteristics, job stress, role conflict and role ambiguity, the preceptorship experience, and work environment satisfaction?

3.b. What are the associations among nurse characteristics, job stress, role conflict and role ambiguity, the preceptorship experience, and work environment satisfaction in regard to turnover intention?

4. Do nursing characteristics, job stress, role conflict and role ambiguity, the preceptorship experience, and work environment satisfaction predict turnover intention when controlling for significant nurse characteristics?

Definitions of Significant Terms

Turnover Intention

Turnover intention was defined as the stated probability of an individual to leave a current position (Boyle et al., 1999; Cowden et al., 2011). Additionally, turnover intention was defined as the possibility of leaving a current work position or voluntarily terminating a current position (Baumann, 2010; Hinshaw, Smeltzer, & Atwood, 1987). Turnover intention is the cognitive process of formatting the desire to leave a job, thinking of quitting, and planning on leaving a job (Kiyak et al., 1997; Mobley, Griffeth, Hand, & Meglino, 1979; Mor Barak et al., 2001). In this study, the concept of turnover intention is defined as the desire of NGNs to voluntarily leave their current workplace, as measured by the Turnover Intention Scale (Cammann, Fichman, Jenkins, & Klesh, 1979).

Job Stress

Gill, Flaschner, and Shachar (2006) defined job stress as the extent of feeling tension or anxiety caused by employees' jobs. In this study, job stress was defined as NGNs' feelings of anxiety because the job requirements do not match their capabilities, resources, or needs to meet the job demands, as measured by the Expanded Nursing Stress Scale (French, Lenton, Walters, & Eyles, 2000).

Role Conflict

Role conflict is defined as incompatible role expectations with a set of standards, conditions, or lack of congruency between the expectations of individuals' own roles and what others expect of them that leads to an interruption of role performance (Pranulis, Renwanz-Boyle, Kontas, & Hodson, 1995; Rizzo, House, & Lirtzman, 1970). In this study, role conflict was operationally defined as the inconsistencies between the NGNs' own needs with a set of standards, role expectations, or expectations of others, as measured by the Role Questionnaire (Rizzo et al., 1970).

Role Ambiguity

Role ambiguity has been defined as the lack of clarity regarding requirements or role expectations related to one's position that could serve as guidance for behavior (Hardy & Conway, 1988). In this study, role ambiguity is operationally defined as the unclear requirements and role expectations of NGNs' positions, as measured by the Role Questionnaire (Rizzo et al., 1970).

Preceptorship Experience

Preceptorship has been defined as an individualized pairing of a new staff nurse/preceptee with an experienced nurse (Sandau et al., 2011). It has also been defined as an idealized teaching-learning method that allows a preceptee to experience day-to-day clinical practice (Sandau & Halm, 2011). Kaddoura (2013) stated that preceptorship is the responsibility of educating new nurses for a specific period by an experienced nurse within a particular unit. The preceptor experience in this study was defined as NGNs' experiences regarding the effectiveness of the preceptorship program during orientation, as measured by the Preceptorship Experience Scale (Blegen et al., 2015).

Work Environment Satisfaction

Work environment reflects the characteristics of a work setting that influence worker motivation and behavior and help or hinder professional nursing practice (Lake, 2006; Litwin & Stringer, 1968). Gardner and Walton (2011) defined the work environment as a set of physical, social, and psychological characteristics of the work condition perceived directly or indirectly by individuals who work in the environment. Work environment satisfaction was operationally defined as NGNs' perceptions of the characteristics of work conditions that could affect their ability to perform the nursing role, as measured by the Halfer-Graf Job/Work Environment Nursing Satisfaction Survey (Halfer & Graf, 2006).

Nursing Characteristics

The NGNs' characteristics were defined in this study as the sociodemographic factors that could influence NGNs' own perceptions, behaviors, or attitudes when providing a service or performing a certain job. These factors may vary from one individual to another. The nurse characteristics to be used in this study are age, gender, educational level, marital status, parental status, monthly salary, specialty area, years of experience and previous experience, length of working hours per shift, length of orientation programs, and the place of employment.

Chapter Summary

This chapter introduces the problem of turnover intention and some of the factors that could affect it, especially among Saudi NGNs. Some of the factors include lack of trust in the assignment of patients to NGNs, supervisory control over practice, and struggling over the perceived role conflict of the actual nursing practice during the internship period. Other issues that NGNs encounter include possessing insufficient knowledge and skills to making an appropriate decision, identifying potential health problems and patient needs, establishing a plan

of care, and evaluating the impact of nursing care on patient health outcomes. Receiving limited support and feedback from preceptors and experiencing stress from increasing workloads and the complexity of patient care are other issues that NGNs are facing.

Turnover intention was found to be high among NGNs, especially during the first 2 years of their practice. In the reviewed studies, the researchers found that the turnover intention rates of NGNs ranged from 14% to 49% in the United States (Aiken et al., 2013; Camerino et al., 2008; International Council of Nurses, 2015; Liu et al., 2011; Twibell et al., 2012). Turnover intention has negative impacts if the actual turnover behavior occurs. A significant financial burden and the negative impact on quality and safety of care as consequences of the actual turnover are outlined in this chapter. The purpose of this study was to examine the factors associated with turnover intention among Saudi NGNs. The factors that were examined include nurse characteristics, job stress, role conflict and ambiguity, the preceptorship experience, and work environment satisfaction. The research questions are outlined in this chapter. The significance of the study involves understanding the factors that promote retention and prevent or reduce the turnover intention of Saudi nurses who have recently graduated from nursing programs.

Chapter II: Review of the Literature

Introduction to the Chapter

This chapter includes an overview about Saudi Arabia, the healthcare system, and the role of the nurses in Saudi Arabia. This chapter will also provide an overview of the recruitment and retention of the nursing workforce and the factors affect nursing shortage in Saudi Arabia. This chapter also summarizes the current literature related to nursing characteristics, job stress, role conflict and ambiguity, preceptorship experience, work environment satisfaction, and their associations with turnover intention. The gap in the literature review and recommendations for future studies will be discussed in this chapter. By the end of the chapter, the conceptual model that will guide this study and the modified conceptual framework will be identified.

Overview about Saudi Arabia

The Kingdom of Saudi Arabia is one of the largest countries on the Arabian Peninsula and is the largest country in the Middle East. The current Saudi population is 32.5 million while Saudi citizens comprise about 22.8 million (68.9%) of the overall population (Central Department of Statistics and Information “CDSI”, 2016). The fertility rate of the Saudi population is 2.69 per 1,000 population and the annual Saudi population growth rate is 2.02% per 1000 population, while the mortality rate has declined to reach 3.9 death per 1000 population (CDSI, 2015). By the year of 2030, it is expected that the population number will reach 39 million (United Nations, 2015). According to the CDSI (2015), 10.06% of Saudi population are individuals under 5 years, 29.12% are under 15 years, 67.95% are between 15 and 64 years, and 2.93% are 65 years and above. It is estimated that people aged 60 and above will be over 2.5 million by 2020. With the advancement of healthcare services, the life expectancy has increased to reach 74.3 years of the total population. The life expectancy for males is 73.1 years, while it is

75.7 years for females (CDSI, 2015). The demand for essential services and facilities and expenditures on healthcare such as healthcare services is expected to increase as the number of populations will continue to increase.

Islam is the main religion that is practiced by the Saudi nation. Saudi nationals connect the Islamic practices to the spirit, behavior, food, language, and social traditions. Muslims have faith in that health, illness, and death are all come from God and believe that illness is a way of atonement for one's own sins (Al-Shahri, 2002). Yet, Saudi, who are Muslims, are encouraged to seek care and treatment during their illness.

Saudi Arabia is one of the largest counties for producing and exporting oil, which is considered the main government income. The economic growth of the country impacts positively on services including the healthcare services and it has made a rapid socioeconomic transition in the past decades. Accordingly, health and lifestyle have impacted significantly. The consumption of fat food and high calories exceed the dietary recommendation and the soft drink consumption and dining out expenditure have also increased. Obesity has increased among Saudi adults and children because of increasingly overeating level and physical inactivity. These issues have resulted in increasing the prevalence of chronic diseases such type 2 diabetes, chronic obstructive pulmonary disease, cardiovascular diseases such as hypertension, hypercholesterolemia, which accordingly increase the burden of diseases and disability.

In addition, road traffic accidents have increased remarkably and become the most frequent cause of injury, disability, and death among adult males aged between 16 and 36 years. The emergence of lifestyle-related diseases enhances the need for the government to take an active role in preventing these diseases through offering preventing services and public education.

Overview of the Healthcare System in Saudi Arabia

The healthcare system is growing rapidly in response to the rapid growth of the Saudi population and the continuous increase of the healthcare needs. Because the health economic profile is increasing significantly in Saudi Arabia, the Saudi Arabian government allocated huge resources for improving the healthcare sector and providing free healthcare services for all Saudi citizens in addition to foreign expatriates who are employed in public healthcare facilities (Al-Homayan, Islam, Shamsudin, & Subramaniam, 2013). Please refer to appendix K to read more about the healthcare system in system in Saudi Arabia.

Description of the MOH and the Government Sector

The Saudi healthcare system is divided into the government (public) sector and the private sector. The Ministry of Health (MOH) is considered the main governmental agency that provides national healthcare services in Saudi Arabia for the entire population through governmental sectors and agencies (Almalki, Fitzgerlad, & Clark, 2011a; UNICEF, 2014). Healthcare services in the government sector are provided under the MOH and other governmental healthcare agencies (MOH, 2015). It provides 60% of the healthcare services free of charge, while 20% of the healthcare services are provided through other governmental agencies and the rest is delivered through the non-government sector. The Saudi government allocates annual financial resources for the MOH. In 2015, the total budget for the MOH was around 62 billion Saudi Riyals (around 16.5 million US Dollar), which accounted for 7.25% of the total government budget (MOH, 2015). The MOH provides curative, preventive, and rehabilitative healthcare services (Albejaidi, 2010). One of its responsibilities is the overall supervision and management of the public and private healthcare facilities (MOH, 2017). The other MOH responsibilities include developing strategic planning, formulating specific

healthcare policies, regulating, planning, managing and financing the government sector, and monitoring health-related activities (MOH, 2017). The MOH is also accountable for the coordination with other government agencies and other relevant organizations.

Healthcare services are provided by the MOH at three levels: primary, secondary and tertiary care. The primary level of care is provided through the primary healthcare centers, which are responsible for providing promotional, preventive, and curative healthcare services such as maternal care, vaccination against major communicable diseases, control and prevention of locally endemic diseases, dental health, and therapeutic management of chronic disease (diabetes and hypertension) (Albejaidi, 2010; Almalki et al., 2017a, Almasabi, 2013). Cases that need advanced levels of care are referred to the secondary level of care (public hospital), whereas cases that require complex levels of care are transferred to the tertiary level of care (more specialized hospitals). The referral system has reduced the number of visits to outpatient clinics (Albejaidi, 2010; Almalki et al., 2017a; Almasabi, 2013). The MOH established medical cities-complexes to provide second and third levels of care in response to local demands for more specialized hospitals (AlYami & Watson, 2014).

The facilities at the secondary level of care provide healthcare services at the district level. These facilities are under the supervision and control of the MOH. Hospitals at the tertiary care level of healthcare services are well developed to provide care for patients with chronic diseases and complex health problems (Albejaidi, 2010; Almalki et al., 2017a; Almasabi, 2013). Saudi Arabia has 59 specialist hospitals. There are 22 obstetrics and pediatric hospitals, four eye and ear nose and throat (ENT) hospitals, four chest and fever hospitals, 18 psychiatric hospitals, 9 convalescence, leprosy and rehabilitation hospitals, and two cardiac and renal hospitals (MOH,

2015). These specialty hospitals have the modern medical equipment and are staffed by experienced medical employees.

Other governmental healthcare agencies include the National Guard Health Affairs, Aramco hospitals, the Ministry of Defense and Aviation, the Ministry of Interior, the Armed Forces, King Faisal Specialist Hospital and Research Centre, Ministry of Education, the Royal Commission for Jubail and Yanbu, and the Red Crescent Society (Almalki et al., 2017a). These healthcare agencies provide healthcare services for their employees, their dependents, and residents during crises and emergencies (Albejaidi, 2010). These agencies are well organized and independent of the MOH as the government allocates separate budgets for each one. These agencies recruit their own employees and they have their own administrators who oversee their health facilities (Almalki et al., 2017a).

Private Sector

Saudi citizens are experiencing long waiting lists to receive healthcare services from the public facilities because of the high demand of supply for healthcare facilities, increased costs of healthcare, and the emergence of lifestyle-related diseases (Albejaidi, 2010). Many citizens do not have access to healthcare facilities, especially those who live in border and rural areas. The Saudi Arabian government became aware of this situation and accordingly created initiatives to support the private sector to fix the scarcity and increase revenue from this potentially rewarding sector (Almalki et al., 2017a). The private sector facilities in Saudi Arabia are owned by wealthy individuals and private companies. Because of the growing population and the influx of foreigner patients who are seeking medical treatment in Saudi Arabia, the private hospital beds are gradually increasing. Healthcare services are provided through hospitals, clinics, pharmacies, medical laboratories, and others for a fee (Almalki et al., 2017a). Increasing the private facilities

became necessary to increase efficiency and availability of healthcare services while reducing the burden of spending by the government (Albejaidi, 2010).

In 2015, the total number of hospitals within both the public and private sectors is 462 with the capacity of 69,394 beds (MOH, 2015). There are 274 hospitals that are under the MOH and 43 hospitals account for other governmental sectors, and 2,282 primary healthcare centers are located in large cities and small towns (MOH, 2015). The private sector also contributes to the delivery of healthcare services, especially in cities and large towns, with a total of 145 hospitals (16,648 beds) and 2,218 dispensaries and clinics (MOH, 2015). The majority of outpatient services were provided by the private sector (Almalki et al., 2017a). Due to the high demand and the restrictions placed by the MOH on using public healthcare facilities, people increasingly use the inpatient treatments that are provided by the private sector (Almalki et al., 2017a).

Management of the Public Healthcare Sector

The MOH has the major authority for managing the public healthcare sector by using centralized management (Almalki et al., 2017a). However, in 2009, the healthcare system became less centralized in managing healthcare services to reduce the increasing pressure on the MOH. Hospitals became self-operated and have independent budgets (Almalki et al., 2017a). According to Almalki et al. (2011), the regional directorates and hospital managers have autonomy in terms of planning, recruiting healthcare professionals, and formulating agreements with providers of health services (operating companies). Giving more autonomy to the regional directorates will ensure a high level of management experience of their budgets, quality of healthcare services, and workforce recruitment processes. However, legislating, regulating, planning, budgeting, and financing decisions are still made and controlled by the top-level

management of the MOH. Although hospital managers and regional directors of healthcare services have greater responsibility and supervisory roles, they are left with little authority (Almalki et al., 2017a). Authorization from the MOH must be taken for the expenditure for the majority of activities. Hierarchical decision-making structures for command and control lead to significant delays in decisions and inhibit new and innovative ideas and strategies to improve the provision of healthcare form change (Almalki et al., 2017a).

Health Insurance Policy

The Saudi government passed insurance policy reforms because of the continuous increase in the demand for healthcare, the price of new technology, population awareness about health and diseases, and limited involvement of the private sector. The insurance policy reform will help in financing the healthcare sector and encourage the private sector to work closely with the public sector. This introduction will give people the opportunity to choose the healthcare services they need. Expatriates and Saudis who are working in the private sector are required to have health coverage in Saudi Arabia. This requirement is expected to be implemented on all Saudi citizens including those who are working in the government sector, yet the government will pay for the cost of the cooperative health insurance.

Role of the nurses in Saudi Arabia

Roles of Staff Nurses

Nurses had no representation or formalized voices to make changes and meet the health need at the national level before 1987 (Al-Homayan et al., 2013). After that year, substantial advances in nursing practice were witnessed in Saudi Arabia. Nurses played a crucial role in delivering healthcare and providing preventative and curative care for patients (Al-Homayan et al., 2013). In most countries, nurses have broad and multiple roles. Nurses are the first-line

healthcare professionals who have direct contact with patients (Jradi, Zaidan, & Shehri, 2013). Nurses spent most of their time and effort on patients than any other healthcare professional. They advocate for promoting health, educating patients and public, preventing illness and injury, providing care and assisting in the remedy, participating in rehabilitation, and providing support (Al-Homayan et al., 2013; Jradi et al., 2013). Nurses empower the community and increase the level of awareness through education to improve their health, enhance prevention, while minimizing the burden of diseases and disabilities (Jradi et al., 2013). However, nurses in Saudi Arabia still lack a consensus on their role compared to social and other healthcare domains (Al-Homayan et al., 2013). Having clear and well-developed roles and responsibilities for the nursing profession will contribute to practice improvement and professional enhancement of nursing in Saudi Arabia.

Roles of the NGNs

NGNs are defined as individuals who had completed a nursing degree from one of the nursing education programs, recently employed in a nursing position, and had two years or less of experience in the clinical nursing practice settings. The NGNs transition from familiar educational setting into unfamiliar workplace nursing practice environment with a beginning skill set (Cleary, Horsfall, Muthulakshmi, Happell, & Hunt, 2013). Their role has changed from nursing students to practicing nurses, where they should work independently and perform as a competent staff nurse in a rapidly changing and fast-paced healthcare environment (Adlam et al. 2009). According to Benner's theory, NGNs practice at the novice or advanced beginner level (Benner, 1984). NGNs are considered as a vulnerable group because they pass through an adjustment period and are at their early stage of developing clinical knowledge, skills, and competencies that are required in clinical practice to evaluate the complex clinical situation (Del

Bueno, 2005; El Haddad et al., 2013). There is an expectation that NGNs can immediately assess and manage numerous situations that they are not essentially prepared for (Cubit and Ryan, 2011).

The first two years of practice is usually reported as the most difficult and stressful time during which they formulate decisions about their intent to commit to the profession and/or their organization (Hodges et al., 2008; Price, 2009). Patricia Benner (1984) proposed in her theory “From Novice to Expert” that NGNs need at least three years of experience to begin to see their actions in term of long-term goals or overall plan, distinguish between relevant and irrelevant attributes, and formulate guidelines for actions in terms of patterns and attributes. According to Fero et al. (2009), NGNs most commonly experience confusion and dissatisfaction with their roles and the high expectations required from their job as they have limited experience, clinical knowledge, and skills. In addition, almost 25% of the NGNs had deficiencies in critical thinking ability, including identifying problems, reporting essential clinical data, and initiating independent nursing interventions. They also had deficiencies in anticipating relevant medical orders, providing relevant rationale to support decisions, and differentiating urgency situations (Fero et al., 2009).

Nurses who are not adequately prepared to provide patient care will be more prone to make mistakes as they begin to practice. In the study conducted by Fero, Witsberger, Wesmiller, Zullo, and Hoffman (2009), a consecutive sample of 2144 newly hired nurses (NHNs) participated in the study. 97.2% of the NHNs did not initiate appropriate nursing interventions. Approximately 67.0% of NHNs did not differentiate urgency and about 65.4% did not report essential clinical data. 62.8% of NHNs did not anticipate relevant medical orders, 62.6% did not understand their decision rationale, and 57.1% were deficient in recognizing problems. It was

reported in another study that between 49% and 53% of novice nurses are involved in errors of nursing care (Kenward & Zhong 2006; Smith & Crawford 2003). Del Bueno (2005) found that 50% of novice nurses miss signs of life-threatening conditions. Spector and Echternacht (2010) have found that new nurses omit key aspects of nursing care, which could lead to adverse outcomes.

Overview of the Recruitment and Retention of Nursing Workforce

The recruitment and retention of the nursing workforce is a worldwide health and human resources concern (International Council of Nurses, 2006; Littlejohn, Campbell, Collins-McNeil, & Khayile, 2012). Adequate healthcare providers are essential for delivering an efficient, safe, and equal quality of care (Kabeneet et al., 2006). In fact, a global shortage of seven million healthcare providers was estimated in 2011 (Webber, 2011). By 2035, the global shortage is projected to increase to 12.9 million (World Health Organization, 2013). The global shortage of nurses, who are well educated and trained, remains a worldwide main challenge that adversely impacts healthcare of everyone (The International Council of Nurses, 2006; World Health Organization, 2013b). Healthcare delivery system is challenged by several transformations in organizational structure and delivery of patient care. The demand for healthcare professionals, especially nurses has increased over the last few decades as a result of aging nursing workforce with anticipated retirements, the rapid technological advancements and increasing the population growth rate, aging of population, chronic diseases, and increasing the acuity and complexity of patient diseases (Wolff et al., 2010; Doran et al., 2012). According to Littlejohn, Campbell, Collins-McNeil, and Khayile (2012), there is a decrease in supply that cannot meet the augmented demand for nurses.

Nursing Shortage in Saudi Arabia

As any other county, Saudi Arabia is experiencing a chronic shortage of Saudi nurses. The rapid growth of Saudi population worsens the demand that is placed on the healthcare system. The expansion of healthcare facilities in response to the growing population, due to the increasing the life expectancy and aging population, will increase the need for more healthcare professionals, especially nurses to meet the healthcare demands in Saudi Arabia. According to the MOH (2015), there are 172,483 nurses and 38.3% of them are Saudi. This means that for every 10,000 of the Saudi Arabian population, there are only 54 nurses. There are several factors that lead to the nursing shortage in Saudi Arabia including dependence on expatriate nurses, social perception of nursing role, and nature of nursing work. These issues create a serious challenge to the efficiency and effectiveness of healthcare delivery.

Dependence on Expatriate Nurses

Saudi Arabia is highly dependent on expatriate nurses who are working in all Saudi healthcare sectors and healthcare education systems to supply the demand for nurses (Aboshaiqah, 2016). The majority of the nursing workforce consists of expatriate nurses who are recruited from over 50 different countries including India, the Philippines, the US, and Canada (AlYami & Watson 2014). The total number of nurses who are working in all healthcare sectors are 101,298, of which 29.1% are Saudis (Almalki et al., 2017a). Part of the problem of the shortage of nurses is that the majority of the expatriate nurses obtain sufficient training and experience from healthcare facilities in Saudi Arabia, then they move to work in one of the developed countries such as the U.S, Canada, Australia, or the UK due to better pay, opportunities, benefits, and privileges (Aboshaiqah, 2016). While the turnover of the nurse

expatriates constitutes a major concern for healthcare facilities, there are no statistics that were published about this crucial issue.

Other challenges include differences of language, religion, social and cultural values of the expatriate nurses and patients. Arabic is the main language of communication that is used by almost all patients and their families (Lamadah & Sayed, 2014). The majority of healthcare professionals do not speak or comprehend the Arabic language, rather they usually communicate in English. Expatriate nurses have difficulty understanding patients' cultural requirements (Mebrouk, 2008). Translators interpret the nursing care and mediate between healthcare providers and patients and their families. Patient satisfaction and patient compliance with medication are adversely influenced by the perceived language barrier(Lamadah & Sayed, 2014). Additionally, expatriates usually have their own beliefs and values and may not have sufficient knowledge about the religion, social and cultural values of their patients (Aldossary et al., 2008). While Saudis believe in Islam, expatriates may omit the importance of patients' beliefs and values in their practice. Providing culturally sensitive care is essential to nursing and these barriers influence patient safety and affect the outcomes of nursing care (Aldossary et al., 2008). On the other hand, these issues enhance the turnover rate among foreign expatriates, who decide to leave their job without any previous notice (Lamadah & Sayed, 2014).

Social Perception of Nursing Role

The nursing career decisions of Saudi citizens are strongly influenced by the culture. Nursing is generally dominated by female workers. However, nursing is a socially undesirable career choice for Saudi women because of working in mixed-gender settings and caring for males, which expose female nurses to moral corruption (Aldossary et al., 2008). Exposing sensitive areas when providing care to the opposite gender gives a negative image to the nursing

profession (Lamadah & Sayed, 2014). Female nurses are experiencing social pressure related to limited options for balancing between work and family responsibilities. Comparing with the physician role, the nursing profession is also not a preferred choice for men. Nurses are perceived by Saudis as a servant, who have to follow the orders of physicians and the needs of patients (Aboshaiqah, 2016; Lamadah & Sayed, 2014). Strict social traditions made it difficult for Saudi female to practice their jobs.

Nature of Nursing Work

Nurses work long hours and rotating shifts with high patient workloads (Aboshaiqah, 2016; Lamadah & Sayed, 2014). They have to cover unfavorable night shifts and weekend duties, as well as working over public holidays. In addition, nurses' disappointment and regret have been documented because they receive low payment, lack of financial incentives, and lack of professional development (Lamadah & Sayed, 2014). In 2009, the government issued a new regulation to unify the payment for all national healthcare practitioners who work in the government sector (AlYami & Watson, 2014). This regulation might limit competition and attraction of qualified and competent national nurses as well as nursing students. In Saudi Arabia, nurses receive low payment for their job in comparison to other healthcare providers (Alboliteeh, 2015). Alboliteeh (2015) also states that nursing is seen as a middle to the low-class job. He also states that because of the social and work-related factors, the MOH reported that they are losing married Saudi female nurses continually. Nursing Turnover will continue to increase if these factors are not addressed.

Literature Review of the Factors Affecting Nurses' Turnover Intention

Independent Variable: Job Stress

Overview and Sources of Job Stress

The terms role stress and role strain are often used interchangeably in the literature related to health, physics, biology, and social sciences. Job stress was defined as the extent of the feeling of a tension or anxiety that is caused by employees' jobs (Gill, Flaschner, & Shachar, 2006, p. 472). It was also defined as the perception of an individual of the external demands or job requirements that are exceeding his/her capability, resources, or needs to cope with or meet these demands (Folkman, 2013).

Nurses experience the highest levels of job stress among health professionals. The nursing profession is recognized as a high-risk and stressful profession as nurses are exposed to a wide range of work demands. The roles of the nurses require a high level of skills for delivering continuous care and working in a variety of situations. Nurses are working long hours with difficult patient conditions and dealing with difficult occupational health and safety hazards. They are challenged with acute stressors and critical incidents. The most commonly reported job stressors are the complexity and uncertainty of disease treatment, high responsibility for patient outcomes, mental and physical workload, the controlling attitude of leadership and management issues, and lack of support by supervisors or colleagues (Goetzel et al., 2009; Mosadeghrad, 2013). These difficulties undermine their full capacity to provide excellent patient care.

Other major determinants of job stress are staff shortage, inflexibility in scheduling, working for long hours and irregular shifts, interference between work and family demands, lack of control over work, and poor participation in decision-making. Insufficient pay, lack of promotional opportunities, lack of recognition, and imbalance between effort and reward are

significant factors for work-related stress (Mosadeghrad, 2013). Job stress can also result from changes and instability in the healthcare organizations, which increase the challenges for employees to adapt and learn new skills to meet the new demands (Goetzel et al., 2009; Ruotsalainen, Serra, Marine, & Verbeek, 2008).

Another important predictor of job-related stress is the lack of preparation to handle patients' emotional needs such as caring for suffering patients and dealing with death and dying patients. Nurses work in a hazardous workplace where they handle infectious blood, blood components, and body liquids of patients. Nurses deal sharp equipment and work with chemical substances and dangerous medications such as chemotherapy. Increasing workload enhances their susceptibility to make mistakes and exposes them to infections and injuries, which significantly contribute to increase job stress.

Sources of Job Stress for the NGNs

The transition period of the NGNs from the educational setting into the clinical practice setting to work as professional nurses is a turning point. Researchers identify this period as a reality shock and a stressful period. The NGNs begin to realize that their expectations based on what they were taught do not match the reality of the clinical practice. The theory-practice gap that results from a mismatch between what they learned in the classroom and what is happening in real clinical areas creates a critical problem. During the transition period, the NGNs focus on learning new tasks, unit routines, and hospital policies and procedures (Wu, Fox, Stokes, & Adam, 2012).

The commonly reported job stressors by the NGNs are lack of clinical experience and competence in skill performance. The NGNs lack the confidence in providing safe and effective patient care, fulfilling the demands of their job, and responding appropriately to emergency

situations. They also lack the organizational skills to prioritize their duties and manage the increasing workload demands and responsibilities. Other common workplace stressors that were reported in the studies are the lack of preparation to respond to demanding patients and acute patient situations. Lack of support and building working relationships with colleagues, superiors, physicians, healthcare professionals from other disciplines, patients, and their families were also reported as job stressors for the NGNs (Cheng, Tsai, Chang, & Liou, 2014).

Consequences of Job Stress

Undesirable personal or organizational outcomes can result from experiencing a high level of job stress. Work-related stress became a growing concern because of its negative impacts on nurses' concentration, decision-making, motivation, and communication skills. Job stress had a significant impact on nurses' job performance and their ability to accomplish tasks and achieve the organizational goals. Job stress is a key predictor that increased nursing burnout while decreased the organizational commitment and job satisfaction. Job stress can create anxiety, insomnia, and depression which in turn affects nurses' physical and mental health and well-being. On the organizational level, high levels of job stress were associated with reducing the quality of patient care while increasing the levels of nurses' absenteeism and intention to leave the workplace.

Some of the studies reported that the most stressful period for the NGNs is the first three to six months of their employment because they need to adjust to their work and cope with the challenges of new nursing roles in a short period (Godinez et al., 1999; Greenwood, 2000; Jarvis, 2000; Lee et al., 2009). Others stated that the stressful period extended to the twelve months. In the US, 30% of NGNs left their positions during the first year of employment, while 57% of them left within the second year. In transition period, the NGNs are either trying to cope with the

situations and deliver the desired healthcare to patients or they decide either to leave their positions or the profession. Therefore, most of the NGNs leave their job if they were not able to cope with the stressful transition.

Associations between Job Stress and Turnover Intention

Six studies that examined the influence of job stress on turnover intention of nurses were included in this review. These studies were published in English between 2013 and 2017. Five studies used a descriptive, cross-sectional design, but only one study used a longitudinal design was implemented by Zhang, Wu, Fang, Zhang, and Wong (2017). The instruments that were used to measure job stress vary in the studies. Yim, Seo, Cho, and Kim (2017), Hong and Lee (2016), and Oh, Uhm, and Yoon (2016) used the Short Form of Korean Occupational Stress Scale in their study. This tool is composed of 24 items and measures seven dimensions which are interpersonal conflict, job demand, job insecurity, job control, organizational system, occupational climate, and reward. Koh, Lee, & Jeong (2016) used a tool developed by Kim and Gu in 1984, which contains 43 items. The subscales of this scale are internal role conflict as a specialist, relationship with other staff in the workplace, nursing practice, limitations of medical practice, professional knowledge and expertise, nursing practice, conflict with the doctor, conflict with patients, the treatment of nurses, and work schedule. The occupational Stress Scale, which was developed by Yeh and Yu in 2009, was used in the study implemented by Zhang et al. (2017). This scale consists of 24 items and 4 dimensions which are roles and interpersonal relationships, critical care tasks, general care tasks, and leadership/ management. Mosadeghrad (2013) included 30 questions into the Occupational Stress Questionnaire from conducting a literature review. The items were factored into 5 constructs which are interpersonal relationships, work environment, organizational policies, stress-related duty and role.

Of the six studies that were included in the literature review, only one study focused on the NGNs who were working in their first year after their graduation (Zhang et al., 2017). General staff nurses were invited to participate in two studies with no restrictions on their experience in their present units (Koh et al., 2016; Yim et al., 2017). However, staff nurses were recruited in the studies if they worked for more than six months (Al-Hamdan, Nussera, & Masa'deh, 2016), more than one year (Hong & Lee, 2016), or their clinical experience was between 6 months to 5 years (Oh et al., 2016). The reviewed studies were implemented in South Korea (Hong & Lee, 2016; Koh et al., 2016; Oh et al., 2016; Yim et al., 2017), China (Zhang et al., 2017), and Iran (Mosadeghrad, 2013).

Koh et al. (2016) reported that 69.6% (78 out of 219) of the nurses who participated in their study had less than 2 years of experience in their present units. Yim et al. (2017) reported that 3.1% (14 out of 447) of the nurses had less than one year of experience, but 21.1% (54) of nurses had more than one year and less than three years of job experience as a nurse. In Mosadeghrad's (2013) study, 37% out of 296 nurses worked between one and five years, while 27% (57 out of 211) of the nurses had less than 5 years of experience (Hong & Lee, 2016). In Oh et al.'s (2016) study, 37.4% (185 out of 508) of the nurses has less than two years of experience.

Oh et al. (2016) found in their study that job stress had a significant negative influence on turnover intention in the General Ward ($t = -3.10, p = .002$) and in the Comprehensive Nursing Service ward ($t = -3.23, p = .002$). The results indicated that the higher the job stress level, the lower the turnover intention. However, Hong and Lee (2016), Mosadeghrad (2013), and Yim et al. (2017) found a significantly significant positive direct effect between job stress and nurses' turnover intention. Yim et al. (2017) found in their final analysis that the role of physical capital

partially mediates between occupational stress and turnover intention, whereas Hong and Lee (2016) found emotional intelligence as a mediator between job stress and turnover intention.

Zhang et al. (2017) reported that 57 out of 343 (17.2%) of the NGNs had an intention to leave after starting their job. The turnover intention rate increased to 59.6% (187) at the fourth month, 74.4% (233) at the eighth month, and 71.8% (208) at the 12 months. The same authors also found in their study that the occupational stress consistently predicted nurses' intention to leave over time. In Mosadeghrad's (2013) study, 35% out of 296 of the staff nurses reported that their job was very stressful and considered leaving the hospital if they found another job opportunity. The highest sources of job stress were inadequate pay, work unfairness and inequality, lack of job security, insufficient regular breaks at work, inadequate staff, high workload, inadequate management support, lack of promotion, and time pressure. Job stressors that were associated with nurses' turnover include increased accidents, job dissatisfaction, insufficient job control, and job insecurity (Mosadeghrad, 2013). To sum up,

In summary, the majority of the studies showed that job stress was associated significantly with turnover intention. Evidence supports that job stress is considered as one of the factors that influence NGNs' turnover intention. However, two of the studies showed that there were mediators between the relationship of job stress and turnover intention, which could be attributed to the use of different measurement tools to measure job stress.

Independent Variable: Role Conflict and Ambiguity

Overview and Sources of Role Conflict and Ambiguity

Role conflict was defined as incompatible role expectations with a set of standards or conditions or lack of congruency between the expectations of individuals' own role and what others expect of them that leads to interruption of role performance (Pranulis. Renwanz-Boyle.

Kontas & Hodson, 1995; Rizzo, House, & Lirtzman, 1970). Role conflict refers to the discrepancy between the individual needs and the role requirements (Rizzo, House, & Lirtzman, 1970). It was also defined as disagreement or dissonance between two or more individuals who have different goals, values, beliefs, or desires (Ellis and Abbott, 2011; Marquis and Huston, 2014). Role ambiguity was defined as the lack of clarity of requirements or role expectations related to one's position (Hardy & Conway, 1988, p. 162).

Role ambiguity is experienced by novice nurses in their new role. It is caused by lack of clarity on behalf of the nurse's own roles or lack of understanding of employers and colleagues regarding the new nurse's roles. It also results from lack of clarity or existence of guides, policies, and directions. Role ambiguity can arise from an uncertainty of the role expectations or unfamiliarity with the clinical environment and its culture. It may also arise from not explicitly addressing rules in organizations (unclear or lack of information) and lack of communication (Gahlan & Singh, 2014; Yurur & Sarikaya, 2012; Moura, Orgambídez-Ramos, & Goncalves, 2014). Other factors that caused role ambiguity are uncertainty about duties, poor allocation of time, and lack of authority. Rizzo et al. (1970) also indicated that inability to predict penalties as an outcome of a behavior is considered as a source of role ambiguity.

Role conflict is an unavoidable issue within any healthcare organization, particularly in a hierarchical organization and with the existence of complex care issues and dilemmas. Role conflict occurs within an individual, between and among colleges, employees, and supervisors. It also occurs within and between groups, between different groups, between and among departments, between different organizations, or with patients and their families (Brinkert, 2010; Jameson, 1999). Some sources of role conflict within and among nurses are lack of goals and expectations-related situations, receiving competing responsibilities, inability to set boundaries,

perceiving unfair treatment, and generational differences (Brinkert, 2010). Brinkert (2010) identified that lack of alignment between verbal and non-verbal communication of patients can be a source of role ambiguity.

Sources of Role Conflict and Ambiguity in NGNs

NGNs who do not receive guidance and support when they transition from the academic setting into clinical practice can experience role conflict and role ambiguity. Role conflict is caused by unplanned change or resistance to change to the healthcare reforms, uncertainties and lack of understanding. Some of the conflicts occur from having inadequate time and capability to meet the demands or responsibilities, and increasing job demands that interfere with the quality of work or time that could be spent with family and friends. Conflict may arise from feeling dominated, not having a voice, or having incompatible views on how work should be performed. Other sources of conflict are associated with the denial or frustration of basic needs. Role conflict may also arise as a result of the difference in expectations, goal competitions, conflict of interests, miscommunication, or dissatisfaction with interpersonal relations (Constantino & Merchant, 1996). Conflict among nurses and physicians or other healthcare professionals may arise from differences in point of view, goals, professional judgments, and levels of experience. Role conflict was also caused by work-life imbalance, extended work hours, and working during weekends and holidays.

NGNs may face barriers in the first years of their employment. The NGNs do not know what the patient needs are because they receive less support and they lack knowledge and/or resources. The NGNs may not feel comfortable enough to ask questions when they become obligated to solve problems related to their work. In addition, increase the complexity of healthcare, technology advancement, and demands for new products or services require changes

in the system of roles. Other factors that lead to role ambiguity and role conflict are inconsistent policies and standards of care, lack of role and responsibility guidelines, and lack of certainty about duties and authorities.

Consequences of Role Conflict and Role Ambiguity

Conflict resolution among nurses is challenging. Conflict results in dysfunctional individual and organizational consequences (Vivar 2006, Al-Hamdan et al. 2014). Role conflict has direct consequences on the safety and quality of patient care, loyalty to the organization, work commitment, job satisfaction, and intent to stay in the nursing profession if it is not managed effectively (Almost et al., 2010; Brinkert, 2010). The unresolved conflict has negative effects such as weakening stability and team functioning, disrupting the status quo, and hindering productivity (Barr and Dowding, 2012; Marquis and Huston, 2014). Long-term issues that result from role conflict are increased absenteeism, sickness leaves, and staff turnover (Ellis and Abbott, 2011). Studies conducted by Moura et al. (2014) and Madlock and Chory (2014) on workers in professions other than nursing determined that when role ambiguity was present among workers, the socialization and employee engagement suffered. Nurses were more likely to search for another job and tended to leave the profession if they experienced recurrent conflict in their roles (Andrews & Kacmar, 2014; Cranford, 2013; Engle & Prince, 2012).

Associations between Role Conflict and Ambiguity and Turnover Intention

Studies that were published between 2011 and 2017 aimed at exploring the relationships of nursing role conflict and/or role ambiguity on turnover intention were included in this literature review. These studies were implemented in Dongdaemoongu, Seoul, Korea (Han, Han, An, & Lim, 2015), the US (Faraz, 2015b), and Belgium (Van Bogaert, Adriaenssens, et al., 2014). Other studies were excluded from this review as the study participants were nursing

faculty or the measurement of role conflict is not related to the nursing clinical practice, where they have different role responsibilities and expectations. The authors of these studies used a descriptive cross-sectional design.

The instrument used to measure the role conflict in Han et al.'s (2015) study is the Role-Conflict tool, which was developed by Beehr and Newman in 1978 and then modified by Moon and Han in 2011. The Role-Conflict tool is comprised of 5 items that were measured on a 5-point Likert scale. Faraz (2015) used the Role Ambiguity Scale which was developed by Rizzo, House, and Lirtzman in 1970. This scale includes items that measure clarity of the role responsibilities and amount of job authority. 6 items were used to measure the role conflict, which was measured on a 6-point Likert scale. Van Bogaert et al. (2014) used in their study the Leiden Quality of Work Questionnaire for Nurses and the Questionnaire on the Experience and Assessment of Work to measure role conflict and role ambiguity. Role ambiguity subscale consists of 5 items while role conflict consists of 6 items; all were measured on a 4-point Likert scale.

The findings from the study implemented by Han et al. (2015) yielded that there was no significant effect of role conflict on role stress. A significant positive correlation was found between role conflict and role ambiguity ($r = 0.22, P < 0.001$). Similarly, positive correlations were found between role ambiguity and turnover intention ($r = 0.32, P < 0.001$) and between role conflict and turnover intention ($r = 0.32, P < 0.001$). The result of a study implemented on Spanish nurses yielded that role ambiguity and role conflict among staff nurses enhanced burnout, which in turn increased turnover intentions (Bao, Vedina, Moodie, & Dolan, 2013). Smith (2011) had the same results, demonstrating that role conflict and role ambiguity are significant factors contributing to the intent to leave among clinical nurses.

Although role conflict and role ambiguity had no direct effect on turnover intention, they were found to have an indirect effect on the same outcome ($\gamma = 0.23$, $P = 0.010$) and ($\gamma = 0.26$, $P = 0.010$) respectively (Han et al., 2015). This means that role conflict and role ambiguity had indirect effects on turnover intention through the mediation of burnout and organizational commitment. In the study implemented by Faraz (2015), it was found that turnover intention had significant negative relationship role ambiguity ($r = -.51$). When conducting a multiple regression analysis, the turnover intention was significantly influenced by role ambiguity ($\beta = -.20$, $t = -2.14$, $p = .03$). However, Van Bogaert et al. (2014) found in their study that role ambiguity and conflict had no significant impact on turnover intention.

In summary, the findings of the relationships between role conflict and ambiguity and turnover intention were inconsistency between the findings. The differences could be related to the differences between the criteria used to recruit the study participants and the settings used to implement the studies.

Independent Variable: Preceptorship Experience

Overview and Sources of Positive Preceptorship Experience of the NGNs

The term preceptorship has been used in literature to describe the one-to-one relationship between a qualified individual and a naive person (Yonge & Trojan, 1992; Ohrling & Hallberg, 2001; Udalis, 2008). Mills et al. (2005) defined the preceptorship as a method of practice preparation that is used by clinical staff, who provide supervision and clinical instruction to either undergraduate students, NGNs, or those who are new to a specialized clinical environment. Preceptorship is characterized by being individualized in which a particular preceptor is assigned to each new graduate nurse to experience day-to-day practice. The

preceptors interact with the preceptees to offer assistance, guidance, teaching, encouragement, and help them adapt to their role (T. Lee, Tzeng, Lin, & Yeh, 2009).

Sources of positive preceptorship experience

Most of the studies related to preceptorship programs identified the significant roles of the preceptors in enhancing or inhibiting the NGNs' positive preceptorship experience. The majority of the studies indicated that preceptors offer assistance, guidance, teaching, and encouragement through one-to-one interaction with the preceptees. This close interaction is significant for the NGNs to adapt into their roles, develop clinical skills, and understand the clinical environment. The preceptors work as a teacher because they have the ability to answer questions and correct errors as they occur (Sandau & Halm, 2011). They also work as a role model because they possess leadership and professional qualities (Lee et al., 2009; Sandau & Halm, 2011) and model best practices (Craig, Moscato, & Moyce, 2012). Preceptors also function as a nurturer because they provide support and guidance for the NGNs through the difficult time (Sandau & Halm, 2011). Preceptors work as an evaluator because they provide valuable feedback and constructive criticism to the NGNs.

NGNs who participated in the preceptorship program reported feeling initially overwhelmed yet expecting a steep learning curve as they were able to safely ask questions and get timely answers from their preceptors (Craig, Moscato, & Moyce, 2012). Preceptorship also provides an opportunity for orienting the new nurses through experiencing day-to-day practice and developing skills through imitating and learning (Kaddoura, 2013; Sandau & Halm, 2011). In this instance, the preceptors assisted the new nurse in navigating the staff roles and routines, learning about the multidisciplinary team, and assuming patient care tasks with supervision

(Valente & Wright, 2007). Preceptors enhanced the sense of confidence to safely assume a full patient workload with less anxiety in the clinical setting (Figueroa et al., 2013).

Preceptors played a pivotal role in promoting the autonomy in the NGNs by gradually stepping back from direct patient care. The preceptors allow the preceptees to care for their patients while observing and providing less guidance to ensure that they demonstrated clinical competency in performing the tasks (Kaddoura, 2013). One of the participants in Kaddoura's study reported that gradually stepping back allows her to analyze and think deeply about her actions. Appropriate delegation of care viewed by the new graduates as an important factor to enhance autonomy (Hickey, 2009). As the preceptors encouraged the preceptees to solve the problems on their own and ask a question with no fear of blame, preceptees felt comfortable and became ready to work independently (Craig et al., 2012; Sandau & Halm, 2011). Preceptors were encouraging the preceptees to solve problems, learn how to process ideas independently, and ask questions comfortably (Sandau & Halm, 2011). The preceptorship programs afforded the NGNs an opportunity to share and learn from the experience of their colleagues and other staff members in a supportive and non-threatening environment (Jones, Benbow, & Gidman, 2014). Being able to set and discuss issues with other colleagues who are undergoing the same period of profound change allows the preceptees to feel supported.

In the study conducted by Sandau and Halm (2011), Maxwell et al. (2011), and Harrison-White and Simons (2013), the preceptees mentioned that giving timely and effective feedbacks, addressing the questions effectively, offering constructive criticism, advice, and guidance if someone is struggling, and setting goals are the qualities that they expect from the prospective preceptors. They also mention that preceptors must be aware of the importance of setting the initial meetings and providing midpoint and final evaluations. Others mention that preceptors

must be knowledgeable, approachable, and possess competency in their area of expertise (T. Lee et al., 2009; Lewis & McGowan, 2015). The best practices of the preceptors are identified by the preceptees as providing essential information needed in a timely manner, allowing time for the new nurses to figure things out independently, and providing time to think and debrief (Craig et al., 2012).

Consequences of preceptorship experience

Job satisfaction. Work engagement and availability of job resources had a greater effect on reducing turnover and positively enhancing job satisfaction (Giallonardo et al., 2010). Preceptees valued the introduction to the team given by the preceptors, which helped them in their new role (Marks-Maran et al., 2013). Some organizations provide alternative support structures to manage some of the challenges that appear in the preceptorship programs. Some of the strategies that were implemented are: establishing a clinical coaching role for supporting new graduates across clinical settings, assigning of primary and secondary preceptors, and establishing preceptor role in a specialist unit for providing consistent support to multiple nurses including students, new graduate, and nurses returning to practice (Haggerty, Holloway, & Wilson, 2013). The preceptorship is intended to increase the adaptation of the new nurses to work and prevent them from quitting their job. An enhanced job satisfaction was reported by NGNs as a result of an increased level of commitment, confidence, and competence gained from the preceptorship programs (Haggerty et al., 2013; Lee et al., 2009; Marks-Maran et al., 2013; Scells & Gill, 2007). While most of the preceptees in the preceptorship program reported high satisfaction from the availability of adequate number of preceptors (Valente & Wright, 2007), preceptees expressed their dissatisfaction in one of the studies as the result of the lack of time from the preceptors to ask questions, receive feedback, and increase frustration with the

workload (Sandau & Halm, 2011). In addition, having more than three to four preceptors contributed to the new graduates' dissatisfaction (Sandau & Halm, 2011).

The benefit to the organization. Preceptorship offers a potential strategy for recruiting NGNs in the healthcare organizations. Several studies reported an improvement of the turnover rate after the implementation of the preceptorship program (Figueroa, Bulos, Forges, & Judkins-Cohn, 2013; Haggerty et al., 2013; T. Lee et al., 2009; Sandau & Halm, 2011). On the other hand, lack of time because of the acuity of patient care and heavy assignments were seemed as the most frequent reasons for leaving the hospital by the new graduates (Sandau & Halm, 2011). Only one of the studies reported that the shortened orientation period can be a factor for enhancing the stress levels and lowering confidence levels, which ultimately resulted in the turnover of the newly hired nurses (Figueroa et al., 2013).

Jones et al. (2014) declared that early experiences in the practice setting could be a strong predictor of work satisfaction and future career development (Jones et al., 2014). Harrison-White and Simons (2013) mentioned that as the new nurses' transition smoothly into the workplace through the support provided from a preceptorship program, they become more readily to provide sooner effective care, feel better about their role, and remain in their position. Other identified that preceptees perceived that their critical thinking skills were improved as a result of the supportive relationships with their preceptors (Kaddoura, 2013).

Moreover, preceptorship allows the NGNs to adapt faster to circumstances and provide high-quality nursing care (T. Lee et al., 2009). Therefore, preceptorship assists the organization in huge saving, as less time is needed to spend with the new nurses for orientation and reduced the time taken to function independently. In addition, the turnover rate can affect the turnover cost. NGNs reported a greater sense of safety in practicing nursing because of the benefit they

received from the one-on-one preceptoring (Figueroa et al., 2013). The preceptorship program promoted patient safety and enhance safe practice (Figueroa et al., 2013; Kaddoura, 2013; T. Lee et al., 2009). Enhancing the quality of care is a good indicator in that nurses are capable of providing better care within short-time training period.

Associations between the Preceptorship Experience and Turnover Intention

Nine studies that examined the association of the preceptorship program on nurses' turnover intention, included in this review. Two of the studies were a systematic literature review. Other studies used a descriptive repeated measure design with one of them have two comparison groups. A longitudinal, randomized study was used in one of the studies. A descriptive prospective design was used in the rest of the studies, except one of them used a retrospective design. All the studies were implemented on the new nurses. The studies were implemented in different settings including Taiwan (Hu et al., 2015; Kang, Chiu, Lin, & Chang, 2016), the US (Blegen et al., 2015; Bontrager, Hart, and Mareno, 2016; Friedman et al., 2013; Morton, 2014) and Canada (Lalonde and McGillis Hall, 2017). The scales that were used to measure the preceptorship experience are: The Satisfaction with the Preceptor (Hu et al., 2015), the Preceptor Evaluation Survey and the Preceptor Self-Evaluation tool (Blegen et al., 2015), The Casey Fink Graduate Nurse Experience Survey (Morton, 2014), and the Preceptor Role Effectiveness Scale (Bontrager et al., 2016).

In one of the studies included in this review, the annual turnover rate of the NGNs was approximately 10.5% (Kang et al., 2016). During the first year of implementing the preceptorship program, a low to very low turnover intention from the current jobs was reported by the NGNs. The mean scores of the turnover intention were 4.18 at the third months, 3.8 at the sixth months, 4.87 at the ninth months, and 2.6 at the twelfth months (Kang et al., 2016). Hu et

al. (2015) implemented an intervention study with repeated measure design and a two-group comparison. A statistically significant lower turnover intention ($p=0.003$) was reported in the group who receives the preceptorship model compared with the control group. Similarly, a longitudinal study was conducted on two groups to compare the retention rate. 86% (596 out of 693) newly licensed nurses hired in hospitals with high preceptor support were retained at the end of the first year of implementing the preceptorship program ($p < .01$). However, hospitals with low preceptor support only retained 80% (545 out of 682) of the newly licensed nurses. In the study implemented by Blegen et al. (2015), 19% ($n=110$) of newly licensed nurses choose to voluntary leave the hospitals that provide low preceptor support compared to 14% ($n= 97$) of the newly licensed nurses choose to leave the hospitals that provide high preceptor support.

Friedman et al. (2013) collected a data from 77 NGNs who have one year of experience or less and worked with preceptors for two to six months. They found a statistically significant difference in retention rate at the 9 months ($\chi^2= 4.09$, $p= 0.043$). They found that most of the NGNs leave their position by 6 months. The retention rate of the NGNs before implementing the program was 82%, whereas it increases to 94% after implementing the program. In the PICU, the retention rate increased from 69.4% to 86.7%. However, in the ER, the retention rate increased from 86.6% to 96.5%. The annual retention of the NGNs improved from 84% to 94%. They also found a significant cost saving by decreasing nursing turnover, which was estimated in the PICU as \$1,816,500 and in the ER as \$367,500. The potential total saving was \$2.184,000.

In the systematic literature review was done by Whitehead et al. (2013), the authors indicated that if the preceptorship program implemented properly, it can improve the NGNs' recruitment and retention. The factor that attributed to the successful implementation of the preceptorship program was the preceptors with more experience and preceptors who were

involved in the preceptor clinical education support framework. NGNs who participated in the preceptorship program felt that the preceptorship is essential for their transition to the clinical practice.

In this systematic literature review, Roxburgh et al. (2010) found around 80% of the NGNs intended to stay after the implementation of the preceptorship. However, another study in this systematic literature review did not find an association between preceptorship and retention (Griffiths, 2009). In the study implemented by Morton (2014), the turnover rate decreased about 10% among the NGNs after implementing the preceptorship program compared to before the implementation. In two studies that included in the systematic review that was implemented by Ke, Kuo, and Hung (2017), the retention rate of the new nurses after implementing the preceptorship program was 78% in the first year of practice and 88.5% in the second year of practice. These findings indicate the importance of the preceptorship programs on the retention of the new nurses.

Bontrager et al. (2016) found in their study that the preceptor role effectiveness had a statistically significant positive relationship with intention to stay in the job. This finding indicates that as the perceived preceptor role effectiveness increased, the intention to stay off the newly licensed registered nurses also increased. The NGNs reported a moderate intention to stay after implementing the preceptorship program in the study conducted by Bontrager et al. (2016) compared to a low intent to leave in the study conducted by Lalonde and McGillis Hall (2017). The NGNs had a good experience during the preceptorship orientation that results from the gradual transition to their role, explaining theory and its application by the preceptors, learning new skills without being criticized, and being familiar with the unit and staff (Morton, 2014). The other factors that affect their experience are working one-on-one with preceptors,

availability of the preceptors to answer questions, having the same preceptor, and having a preceptor for three months (Morton, 2014).

In summary, positive preceptorship experience was associated with reducing the turnover rate of the NGNs. However, the factors attributed to the NGNs' perceptions of positive preceptorship experience were not studied extensively in the previous studies.

Independent Variable: Work Environment Satisfaction

Overview and Sources of the Work Environment Satisfaction

Work environment reflects the characteristics of the work setting that influences the motivation and behavior of the workers, which may help or hinder professional nursing practice (Lake, 2006; Litwin & Stringer, 1968). Gardner and Walton (2011) defined work environment as a set of physical, social, and psychological characteristics of the work condition perceived directly or indirectly by individuals who work in the environment. Healthy work environment was first used and defined in the nursing field by the nurse leader Disch in 2002. She defined healthy work environment as a work setting in which policies, procedures, and systems exist for an employee to meet organizational objectives.

A great deal of effort has been dedicated by researchers to examine the attributes of the nursing work environment. However, a wide range of attributes were found and further attributes have continued to emerge. The Institute of Medicine (2004) identified patient safety, staffing levels, clinical decision making, management, and intradisciplinary collaboration as a transforming framework for the nursing work environment. In addition, six standards that make up a healthy work environment were published by the American Association of Critical Care Nurses in 2005. The standards include authentic leadership, effective decision making, communication skills, true collaboration, appropriate staffing, and meaningful recognition. The

work practice environment is divided by DeKeyser Ganz and Toren (2014) into five characteristics. These characteristics are nurse participation in hospital management, the nursing foundation for quality care, the capability of nursing administration, support and leadership for nurses, appropriate staffing and use of resources, and nurse-physician relationships.

In the literature, autonomy in decision making, leadership behaviors, control over practice, nurse-physician relationship and hospital staffing were found as important predictors of job satisfaction in frontline nurses (Saber, 2014). Seven factors were found to have a potential impact on nurses' retention from conducting a descriptive study in Canada using focus groups for data collection. These factors are the relationships with peer and supervisor, relationship with patients, organizational support and practices, rewards mechanisms at work, and physical and psychological responses to work (Tourangeau et al., 2010). The finding from their study provides an evidence that peer support and job autonomy were significantly related to turnover intention.

Wilson (2015) reported in his study that lack of management support and communication were the main reasons for choosing the employees to leave their organization. Nurses who had access to support, information, and resources as well as have opportunities for professional development are empowered, are more engaged, and experience less stress. These factors result in a better organizational outcome in nursing practice environment (Kramer et al., 2012). Better group cohesion and positive social climates, and problem resolution in the workplace could result from high-quality working relationships between staff nurse and nurse managers (Duffield et al. 2010). Nurses who receive rewards and recognition, support and encouragement from nurse managers and immediate supervisors were less likely to leave their workplaces (Duffield, Roche, Blay, & Stasa, 2011; Estry-Behar et al., 2007).

In a study aimed at examining the effects of the healthy work environment on turnover of registered nurses, results found that nursing leadership was found the most critical factor in optimizing the work environment and enhancing retention of the registered nurses (Blake, Leach, Robbins, Pike, & Needleman, 2013). The authors demonstrate in their study that when good leadership is combined with good communication and collaboration, job satisfaction, patient safety, and patient and nursing outcomes were increased, yet turnover rate was decreased.

Kramer et al. (2012) described healthy work environment as the setting that provides an excellent transition for the newly licensed registered nurses. During the transition period, NGNs are more likely to be affected by organizational and environmental factors which include unit orientation, interpersonal relationships, leadership style, autonomy, rewards, learning and professional development opportunities, and work schedules (Halfer & Graf, 2006; Scott, Engelke, & Swanson, 2008). However, the frequently cited factors of the work environments that allow the NGNs to consider leaving their job are the increased workload, job demands, work schedules, and work relationship issues with coworkers and supervisors (Takase, Oba, & Yamashita, 2009). Graduate nurses also perceived that organizational issues are: working with physicians, fitting in the job, completing work on time, and work-life balance (Kramer et al., 2012). Kramer et al. (2011) identified graduate nurses who were working in clinical work environment that need improvement experienced high environmental reality shock. Supportive work environment and representing professional socialization principles are important factors for the NGNs' transition and adjustment to new environments.

Healthcare organizations must provide nurses with a healthy work environment that allow them to engage in professional practice, provide quality and safe patient care, and feel satisfied with the quality of care they provide (Kramer et al., 2012). To create an effective work

environment that attracts and retain nurses, it is important to understand how these nurses perceive their workplace and reconsider their needs.

Consequences of the Work Environment Satisfaction

Numerous studies have been conducted internationally to examine nursing work environment in different settings. Researchers demonstrate that work environment satisfaction increased job satisfaction level, yet it reduced burnout and intention to leave (Aiken et al. 2011; Blake, Leach, Robbins, Pike, & Needleman, 2013; Choi & Boyle 2014; Christian et al. 2011; Coetzee et al. 2013; Li et al. 2013; Patrician et al. 2010; Unruh & Zhang 2013; Van Bogaert et al. 2013; You et al. 2013). Positive nurse-physician relationships and low emotional exhaustion levels predicted nursing intention to stay (Van Bogaert, Clarke, Roelant, Meulemans, & Van de Heyning, 2010). Collaboration and communication have been associated with enhancing nurses' commitment to their organization and consequently improving nurse job retention (Blake, Leach, Robbins, Pike, & Needleman, 2013).

Another study was concluded that newly licensed nurses who were working in a healthy practice environment reported high work satisfaction, less reality shock, and high retention rate (Kramer et al., 2012). Strong work relationships with peer and supervisors encouraged nurses to set and achieve goals and enhanced the quality of patient care (Van Bogaert et al., 2010). Work environment satisfaction have the potential to prevent and lessen errors in nursing practice (Reason, 2000; Leape 2002). In addition, nursing practice environment satisfaction had an influence on obtaining desired outcomes and enhancing patient recovery after treatment (Donabedian 2005, Schmalenberg & Kramer 2008). Cho et al. (2012) and Peterson et al. (2011) recognized that clinical settings, type of organization, and work conditions as substantial predictors of intention to leave in graduate nurses (Bowles & Candela, 2005; Ulrich et al., 2010).

Work conditions could affect nurses' retention in hospitals and in the nursing profession (Denise 2011). Thus, the nursing turnover could be addressed by improving nursing work environment.

Associations between Work Environment and Turnover Intention

Eight studies were published between 2013 and 2017 and aimed at examining the impact of work environment factors in relation to nurses' turnover intention. These studies were included in this review. A cross-sectional study was used in five of the studies, two were correlational studies, and a sequential mixed method research design was used in one of the studies.

Several measurement tools were used to measure the nursing work environment. Five of the studies used the Practice Environment Scale of the Nursing Work Index that was developed by (Lake, 2002) to measure five factors of the nursing work environment. The five subscales are adequacy of staffing and resources, participation in hospital affairs, nursing foundations for quality of care, leadership and nurses' support, the ability of the nurse manager, and work relationships with physicians and peers. One of the studies that was implemented by Yu and Kan (2016) used Halfer's and Graf's Job/Work Environment Nursing Satisfaction Survey (Yu & Kang, 2016). This instrument consists of 18 items that were measured in seven dimensions: professional development, work schedule, competence, access to resources, professional respect, and becoming part of a team. Choi, Cheung, and Pang (2013) adopted an instrument that they developed and tested in a previous study (Choi et al. 2011), which includes 177 items. The dimensions of their instrument are management, staffing and resources, ward practice, relationship with a co-worker, and career development. However, Unruh and Zhang (2013) measured the work environment characteristics by using items from different scales including Frone et al. (1997), Gurney et al. (1997), Kovner et al. (2007), and Spector and Jex (1998). The

work environment characteristics include shifts, hours of work, orientation, workload, overtime, demand and control, and perceptions of job difficulty.

Turnover intention was measured on half of the studies in a dichotomous scale. In Choi et al. (2013) study, the question of intention to leave was “have or have not thought about resigning from the job”. The question used in (Van den Heede et al., 2013) study was “would you leave your current hospital within the next year as a result of job dissatisfaction”. Similarly, nursing intention to leave was measured in a dichotomous scale in term of leaving the hospital (Van Bogaert, Van Heusden, Timmermans, & Franck, 2014) and the nursing profession within a year (Van Bogaert, Timmermans, et al., 2014; Van Bogaert, Van Heusden, et al., 2014).

However, Likert type scales were used in the remaining studies that included in this review. Yu and Kang (2016) used 4 items, 5-point Likert scale that was revised by Park (2002) to measure turnover intention. In the study conducted by Ishihara, Ishibashi, Takahashi, and Nakashima (2014), 2 items are used to measure job retention in 6-point Likert scale that ranged from not relevant to extremely likely to leave. The items were developed by the International Collaboration to Study the Occupational Health of Nurses. Nurses’ turnover intention was measured on 4-point Likert scale using 2 items in term of changing nursing job or profession (Numminen et al., 2016). However, Unruh & Zhang (2013) used a 5-point Likert scale on 4 items to measure the intent to leave nursing. Statements included the intent to leave the nursing profession, looking for a new profession, staying in nursing for a long time, and having a job that requires an RN license.

The characteristics of individual who participated vary across the studies. Only four of the studies were focusing on the NGNs, while the rest of the studies included all nurses with no specifications of their working experiences in their current positions. NGNs who participated in

Ishihara et al. (2014), Numminen et al. (2016), and Unruh and Zhang's (2013) studies required that nurses have a maximum of 12 months of experience to be eligible for participating in the study. However, the NGNs who participated in Yu and Kang's (2016) study had a maximum of 18 months of work experience. The remaining four studies that included in this review did not limit the participation on the nursing work experience. The mean year of experience and standard deviation in nursing was 10.26 ± 7.66 15 years (Choi et al., 2013), 15 years (Van den Heede et al., 2013), 15.3 ± 10.3 years (Van Bogaert, Van Heusden, et al., 2014), 15.5 (Van Bogaert, Timmermans, et al., 2014). While the mean years of experience on present nursing position were 9.5 ± 8.8 (Van Bogaert, Van Heusden, et al., 2014) and 8.9 years (Van Bogaert, Timmermans, et al., 2014). Only 171 out of 1271 (13.5%) of the respondents had less than one year of experience in their current unit, but 188 (14.9%) had between one to three years of experience (Choi et al., 2013). The studies were implemented in several countries including Hong Kong (Choi et al., 2013), Japan (Ishihara et al., 2014) Belgian), Korea (Yu & Kang, 2016), Belgium (Van Bogaert, Timmermans, et al., 2014; Van Bogaert, Van Heusden, et al., 2014; Van den Heede et al., 2013), Thailand (Nantsupawat et al., 2017) and Finland (Numminen et al., 2016).

In the study implemented by Choi et al. (2013), 60% out of 1271 of the nurses' respondents had more than 5 years of experience in their positions and they considered quitting from their positions. The study implemented by Ishihara et al. (2014) showed that 8.1% of the 148 NGNs had the desire to leave the nursing profession while 11.5% of the NGNs had the desire to leave their position. Van den Heede et al. (2013) reported in their study that 29.5% of the 3186 bedside nurses indicated their intention to leave their current hospital within one year, while 29.7% reported their intention to leave the profession. Van Bogaert et al. (2014) found in

their study that 6% out of 1201 of the staff nurses reported their intention to leave the hospital, while 11% had an intention to leave the nursing profession.

A statistically significant negative association was found between work environment satisfaction and intention to leave (Choi et al., 2013; Ishihara et al., 2014; Nantsupawat et al., 2017; Van den Heede et al., 2013; Yu and Kang, 2016). A strong direct positive effect was found between turnover intention and nurse management, nurse-assessed quality of care, and nurse-physician relationship at the unit level, while a direct negative effect was found between workload and turnover intention (Van Bogaert et al.; 2014). The nurse practice environment satisfaction explained 60% of the variance on job outcome including turnover intention (Van Bogaert et al.; 2014).

Van Bogaert, Timmermans, et al. (2014) revealed that 10% out of 1108 of the nurses reported their intention to leave the nursing profession. Other authors reported that 10% of 318 Finnish registered nurses expressed their intention to quit their job within a year (Nantsupawat et al., 2017). In Unruh and Zhang's (2013) study, 6.7% of 533 nurses were disappointed because they went into nursing. The same authors indicated that 27% of the NGNs reported that if they are paid the same, they would take a job other than nursing. Unruh and Zhang's (2013) revealed that 6.5% of the NGNs reported their intention to look for a new profession, while 8.6% indicated that they were thinking about leaving the nursing profession.

A statistically significant negative association was found between work environment satisfaction and intention to leave (Choi et al., 2013; Ishihara et al., 2014; Nantsupawat et al., 2017; Van den Heede et al., 2013; Yu and Kang, 2016). A strong direct positive effect was found between turnover intention and nurse management, nurse-assessed quality of care, and nurse-physician relationship at the unit level, while a direct negative effect was found between

workload and turnover intention (Van Bogaert et al.; 2014). The nurse practice environment satisfaction explained 60% of the variance on job outcome including turnover intention (Van Bogaert et al.; 2014).

The aspects of nursing work environment that significantly predict nurses' intention to resign from their current positions were professionalism, staffing and resources, management and ward practice (Choi et al., 2013). The results imply that lack of social support by immediate supervisors and colleagues and conflict with immediate supervisors prevent NGNs from adjusting to their work environments and increase NGNs' intention to leave (Ishihara et al., 2014). The predictive factors of intention to leave were emotional exhaustion, nursing management at the unit level, nurse-physician relationships, and support from hospital management and organization (Van Bogaert, Timmermans, et al., 2014). Of these factors, the strongest predictor of turnover intention was the nurse manager support at the unit level.

Significant relationships were observed between the quality of the nursing work environment (managerial support of nursing care, good nurse-physician relationships, nurse involvement in decision-making, and organizational priorities on quality of care) and nurse intention to leave the hospital (Van den Heede et al., 2013). The authors found that higher rates of intention to leave in the hospitals that assigned a greater number of patients to one nurse. Also, the qualitative results supported the empirical results in which nursing work environment influences nurse turnover intention. Hospitals with a participative and highly accessible management style have a better nursing work environment and lower nurse intention to leave their workplace. The management styles in this study include staffing adequacy, autonomy in decision making, participation in the unit and hospital governance, and opportunities for career development of the bedside nurses (Van den Heede et al., 2013).

In Yu and Kang's (2016) study, 35.2% (out of 443) of NGNs expressed high turnover intention level. The higher turnover intention was experienced by nurses who worked between 7 to 18 months compared to NGNs who worked less than 6 months. The authors found that turnover intention of the NGNs who worked between 0 to 6 months was affected by work schedule (rotating shifts versus fixed schedules), duration of the orientation period, desired hospital, being part of a team, practical support, and professional development. Work schedule and desired hospital were the factors that affect turnover intention in the NGNs who worked between 7 to 12 months. However, in the correlation analysis, practical support and work schedule were the factors affecting NGN's turnover for the same orientation period. Professional development and practical support were the factors in the work environment that affect turnover intention of the NGNs who worked for 13 to 18 months.

The nurse-physician relationships subscale was the most positive perception of the practice environment among the NGNs, which was followed by nursing foundations for quality of care, support and leadership of nurses, and participation in hospital affairs subscale (Nantsupawat et al., 2017). In another study, the factors of the job difficulties that contribute to the greater intent to leave the nursing are lack of supervisor support, inadequate help from others, problems with organizational rules and procedures, incorrect instructions, and interruptions (Unruh and Zhang, 2013). The work environment characteristics that contribute to nursing turnover intention are poor participation in hospital affairs, poor foundations for quality of care, lack of adequate staffing and resources, and poor nurse-manager and nurse-physician relationships (Nantsupawat et al., 2017). While studies reveal different factors of the work environment, the work environment itself can affect nurses' turnover intention. Thus, to reduce

intention to leave the nursing workforce, emphasis should be placed on policy on improving nurse work environment.

In summary, evidence showed that work environment satisfaction as a predictor that is associated with turnover intention. However, several factors of work environment satisfaction were identified by the nurses in the studies. These factors were inconsistent between the studies, which could be attributed to the fact that different measurement tools were used in the studies.

Independent Variable: Nurse Characteristics

Age

Age was positively associated with turnover intention. Younger nurses reported more intention to leave their current position compared to older nurses (Almalki, FitzGerald & Clark, 2012; Choi, Cheung, & Pang, 2013; Kim & Kim, 2011; Mosadeghrad, 2013; Tourangeau & Cranley, 2006; Yim, Seo, Cho, & Kim, 2017; Zurmehly et al., 2009). However, findings of the study conducted by Unruh and Zhang (2013) found no significant association between age and intention to leave. Older nurses were less likely to plan to leave the organization because leaving before retirement could be costly and unworthy for them (Almalki, FitzGerald & Clark, 2012). Older nurses may have increased financial and familial obligations. They may also face greater age discrimination when they seek out a new job (Lambert et al., 2012).

Gender

Several studies revealed that gender had a strong significant association with nurses' turnover intention (Almalki, FitzGerald & Clark, 2012; Choi et al., 2013; Yim, Seo, Cho, & Kim, 2017). A higher intention to leave the current job was reported by male nurses (Almalki, FitzGerald & Clark, 2012). However, Unruh and Zhang (2013) revealed that gender was not significantly related to intention to leave.

Educational Level

Several studies revealed that educational levels had a significant association with nurses' turnover intention (Almalki, FitzGerald & Clark, 2012; Choi et al., 2013; Kim & Kim, 2011; Purcell, Kutash, & Cobb, 2011). Nurses who have a higher level of education are more likely to leave their current position (Brewer et al., 2009; Coomber & Barriball, 2007; Hayes et al., 2006; Tourangeau & Cranley 2006). Almalki, FitzGerald, and Clark (2012) indicated that nurses with an Associate Degree reported high turnover intention compared to other groups. However, Lambert et al. (2012) reported in their study that highly educated nurses have more career options, so they are more intended to leave their position. Nevertheless, other studies showed that the level of education was not significantly associated with the turnover intention of NGNs (Lee, Lim, Jung, & Shin, 2012; Unruh & Zhang, 2013).

Marital Status

The results of the studies conducted by Almalki, FitzGerald, and Clark (2012) and Kim and Kim (2011) yielded that nurses who have never married had higher intention to leave. The authors explained that nurses who have never married were younger than other groups, so they may have inadequate clinical and life skills to cope with the complexity of work environment. Another reason the authors identified is this group have fewer home obligations and fewer family responsibilities. Thus, they might have fewer obstacles to transfer to another organization (Almalki, FitzGerald & Clark, 2012; Lambert et al., 2012). However, findings from another study showed that marital status was not significantly related to intention to leave (Unruh & Zhang, 2013).

Parental Status

The result of one of the studies showed that having a flexible time off to manage family responsibilities such as caring for a child or elder individual influences nurses' intention to remain employed (Tourangeau et al., 2010). Almalki, FitzGerald & Clark (2012) found that nurses with children are less likely to leave the organization. Their explanation is that nurses with children might have financial commitments to fund their children through university. Having financial obligations toward children increased nurses' intention to remain employed (Almalki, FitzGerald & Clark, 2012). On the other hand, the finding in one of the studies showed that the presence of children at home was not significantly related to intention to leave (Unruh & Zhang, 2013).

Specialty Area of Clinical Practice

A statistically significant association was found between nurses' turnover intention and their area of work or specialty. Nurses who are working in psychiatry, ICU, pediatrics, operation theatre, cardiology, surgery, internal medicine, and accident and casualty departments were more likely to leave their current positions than did nurses in other wards (Mosadeghrad, 2013). Mosadeghrad argues that nurses who are working in these departments experienced high workload, time pressure, insufficient breaks, irregular shifts, lack of management and co-workers' support.

Years of Experience in the Current Position

Several studies revealed that years of experience in the current position has a significant association with nurses' turnover intention (Almalki, FitzGerald & Clark, 2012; Choi et al., 2013; Kim & Kim, 2011). The number of years of employment in the organization has a positive relationship with the nursing intention to stay. Nurses who worked more years as a nurse had

higher intention to stay employed in the profession (Larrabee et al., 2003). Years of experience in nursing and the current position had a negative association with the turnover intention (Almalki, FitzGerald & Clark, 2012; Yim, Seo, Cho, & Kim, 2017). Researchers argue that nurses with longer years of experience in their job become used to their work, duties, co-workers, organizational system and general work environment. They adapt to their role and have developed high work, position, and organizational commitment. Nurses with more years of experience may lose pension, friends, and seniority (Lambert et al., 2012). However, another study showed that the duration of work in clinical practice was not significantly associated with NGNs' turnover intention (Lee, Lim, Jung, & Shin, 2012). In addition, previous work experience in healthcare was not significantly related to intention to leave (Almalki, FitzGerald & Clark, 2012; Unruh & Zhang, 2013).

Length of the Unit Orientation/ Preceptorship Program

The duration of the orientation and instruction by a preceptor was found to have a statistically significant association with NGNs' turnover intention (Lee, Lim, Jung, & Shin, 2012; Yim, Seo, Cho, & Kim, 2017; Yu & Kang, 2016). Also, a statistically significant relationship was found between turnover intention and satisfaction with job orientation (Numminen et al., 2016). NGNs reported higher turnover intention if they had less than one week of job orientation on practice compared to those who underwent more than four weeks of orientation (Lee, Lim, Jung, & Shin, 2012). Another study showed that orientation length was not a significant predictor for an intention to leave nursing, yet nurses who with positive orientation experience were less likely had an intention to leave nursing (Unruh & Zhang, 2013).

Gap in the Literature Review

There is a growing body of evidence exploring the relationship between job stress, role conflict and role ambiguity, and characteristics of the work environment, yet the majority of the studies were implemented on the staff nurses who have more than one year of experience. The studies regarding NGNs are less extensive and fairly dated. Little attention has been given to examining the influence of the perceived level of role conflict and role ambiguity of staff nurses on organizational outcomes, especially turnover intention among the NGNs. In addition, different measurement tools were used in different studies to examine the independent variables (job stress, role conflict and role ambiguity, preceptor role effectiveness, and characteristics of work environment) and the dependent variable (turnover intention). Using different measurement tools lead to various conclusions and inconsistency between the results of the studies. In addition, most of the studies used a quantitative, descriptive method. This method allows for predicting the relationships between the independent variables and the dependent variable but does not claim for causality (Cohen et al., 2003). It also does not explain the way the variables are related or if there is an interaction between the variables. Using a small sample size is another issue that was found in most of the studies. Therefore, the generalizability of the findings is limited.

Recommendations for Future Study

The literature review shows evidence that managing job stress and role conflict and role ambiguity, whereas enhancing preceptor role effectiveness and the characteristics of work environment have been particularly significant for preventing NGNs from leaving their positions. It would be useful to study the perceptions of NGNs from other cultural backgrounds to gain a greater insight into global perspectives and ascertain if biases exist toward the perceived job

stress, role conflict and role ambiguity, preceptor role effectiveness, and characteristics of the work environment on the NGNs' turnover intention. There is a pressing need to develop a study that would explore these factors that have received less attention in this area of research among the NGNs. Furthermore, it is necessary to clarify how job stress, role conflict and role ambiguity, preceptor role effectiveness, and characteristics of the work environment affect nurses during the transition period to prevent turnover among new graduate nurses. Studying these factors could allow for generating common strategies for recruiting and retaining new nurses.

Because of the paucity of research regarding to Saudi NGNs, the need for implementing this study become evident from the previous literature search. The plan of this study is to examine the factors that affect the NGNs' turnover intention, including nurse characteristics, job stress, role conflict and role ambiguity, preceptor role effectiveness, and the characteristics of work environment. Even though job satisfaction was considered in previous studies as one of the strongest predictors of turnover intention, job satisfaction will not be included as an independent variable in the study to predict the turnover intention. The reason is that the concept of job satisfaction is a complex and multidimensional phenomenon that has the possibility to be influenced by several factors. Instead, the goal of this study is to examine the characteristics of the nursing work environment that can be improved to decrease the percentage of NGNs' intention to leave their current job. Generally, researchers demonstrate that enhancing the satisfaction with the work environment characteristics is an effective strategy to address nurses' intention to leave their job.

Theoretical Model

The Determinants of Hospital Nurse Intention to Remain Employed Model will be used to guide this study. This model was developed by Tourangeau, Cummings, Cranley, Ferron, and

Harvey (2010) to explain the determinants of hospital nurse intention to remain employed (See Figure 1). To develop this model, the authors implemented a descriptive qualitative study using a focus group method. This study was carried out in two Canadian provinces on thirteen focus groups that include a total of 78 nurses. The average participants in each group is 6 nurses.

Eight thematic categories emerged from focus groups. The thematic categories reflect nurses determined as the factors that influence their intentions to remain employed (Tourangeau et al., 2010). The thematic categories are physical and psychological responses to work, the condition of the work environment, relationships with co-workers, relationship with and support from manager, organizational support and practices, patient relationships and job content, work rewards, and external factors (Tourangeau et al., 2010). Nurse characteristics category was added to the model, which has emerged from the authors' literature review that aimed at exploring factors influencing nursing retention. Adding the nurse characteristics to the model is paramount to understand their impact on nurse intention to remain employed.

It was hypothesized that all thematic categories are directly affecting intention to remain employed. It was also hypothesized that some of the thematic categories influence other thematic categories (Tourangeau et al., 2010). For example, the condition of work environment can influence physical and psychological responses to work. If the condition of work environment is hypothesized to affect physical and psychological responses to work, the condition of work environment is proposed to have an indirect effect on intention to remain employed (Tourangeau et al., 2010). This means that the condition of work environment mediated through another thematic category, which is (in this example) physical and psychological responses to work.

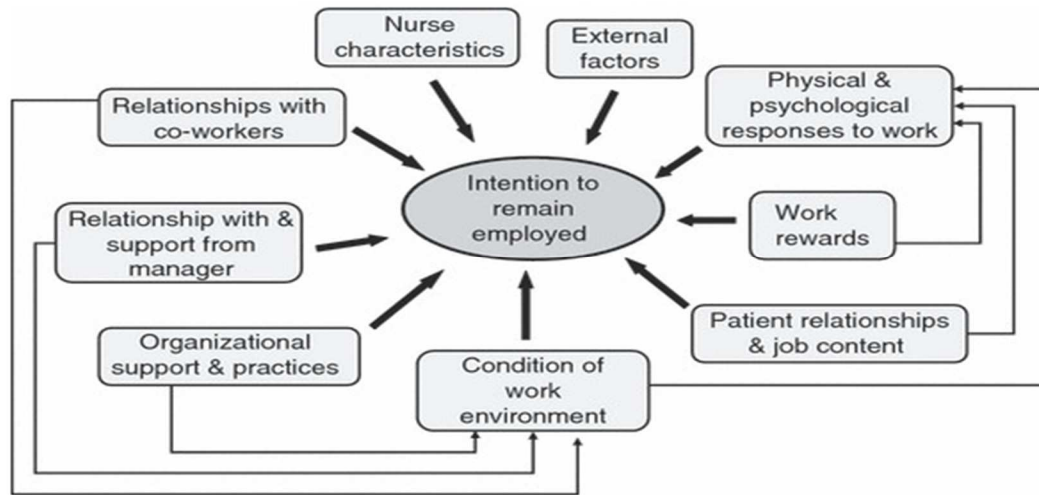


Figure 1: Tourangeau, Cummings, Cranley, Ferron, & Harvey (2009). Determinants of Hospital Nurse Intention to Remain Employed Model.

The Modified Conceptual Model

The Determinants of Hospital Nurse Intention to Remain Employed Model will be modified based on the findings from the literature review about the factors influencing turnover intention of nurses (See Figure 2). A new conceptual model will be developed to reflect the relationships that will be examined between selected predictors (determinants) that influence NGNs' turnover intention in their current positions. Four determinants will be used in this study. The first thematic category (determinant) is nurse characteristics. According to the literature review that was implemented by Tourangeau et al. (2009), year of experience, educational preparation, and age was found to have an association with intention to remain employed. The nurse characteristics that will be examined in this study are age, gender, educational level, graduation date, marital status, having dependent children, specialty area of practice, experience in the current position, previous experience, length of the preceptorship program, and the length of the shift.

The second determinant is physical and psychological responses to work. This determinant is explained the nurses who participated in Tourangeau et al.'s (2009) study as being very stressed and burned out are more likely to leave their place of employment. Feeling stressed and burned out will have a negative impact on their health. These nurses also identified that working too hard, too much and too often will allow them to consider leaving their jobs. Work overload for a long time will increase their feeling of overwhelmed and affect their ability to find a balance between work and personal life (Tourangeau et al., 2009). For the purpose of this study, job stress and role conflict and role ambiguity will be used as the determinant of the nurse turnover intention under the physical and psychological responses to work.

The third determinant for the nurse turnover intention is the organizational support and practices. Nurses who were involved in the focus group discussed the influence of the organizational support for professional nursing practice (Tourangeau et al., 2009). They identified that having adequate orientation and continuing formal support for newly employed nurses as an important factor for nurses to remain in their position. The preceptorship experience will be used in this study as a determinant for the NGN turnover intention.

The fourth determinant that will be used from the Determinants of Hospital Nurse Intention to Remain Employed Model is the condition of the work environment. Nurses who participated in the focus group reported the importance of having adequate human resources and availability of material for providing patient care (Tourangeau et al., 2009). They reported their intention to leave the job if there were inadequate staff nurses and other staff. They also mentioned that inadequate preparation of staff to deliver nursing care as a factor that enhances their intent to leave their job. Nurses will also consider leaving their position if the needed materials such as equipment and supply were unavailable (Tourangeau et al., 2009). The nurse

also indicated that the supportive physical work environment as motivators for them to remain employed. In this study, work environment satisfaction will be used in this study as a determinant for the NGN turnover intention.

The Modified Conceptual Framework

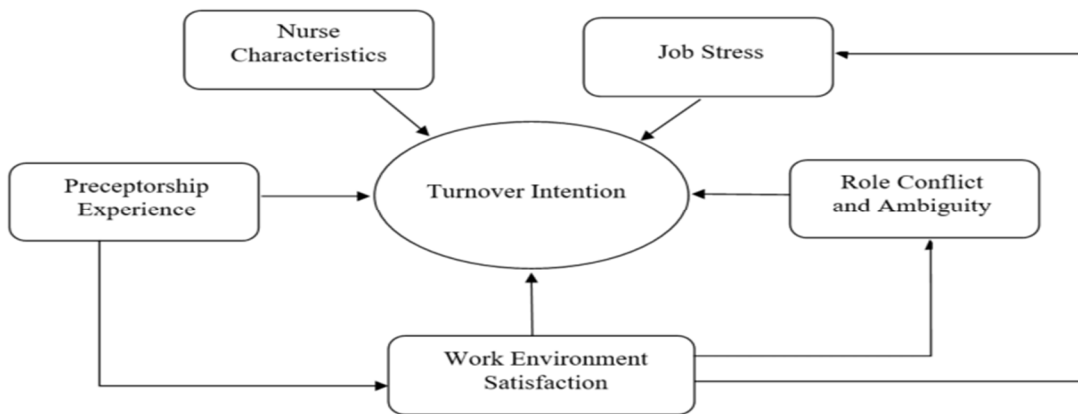


Figure 2: Andargeery, S. (2018). Conceptual framework of factors influencing turnover intention among newly graduated nurses modified from the Determinants of Hospital Nurse Intention to Remain Employed Model.

Chapter Summary

This chapter provides an overview about Saudi Arabia. The healthcare system in Saudi Arabia is also discussed. An overview of the recruitment and retention was provided in this chapter. The nursing shortage in Saudi Arabia is caused by turnover of nurses and the social perception of the nursing role by Saudis. This chapter discusses the literature review around the factors associated with turnover intention. Job stress, role conflict and ambiguity, preceptorship experience, and work environment satisfaction were described in the literature. The gaps in the literature, recommendations for future research, and the plan for this study were identified. The theoretical model that guides this study is the Determinants of Hospital Nurse Intention to Remain Employed Model. This model was modified according to the literature review that was implemented in this chapter.

Chapter III: Methodology

Introduction to the Chapter

This chapter describes the design of the study and the sampling strategy, which includes the target population, eligibility criteria, sampling method, sample size, settings, and recruitment plan. Ethical considerations will also be addressed in this chapter. The measurement tools and the plan for pre-testing the questionnaires will be discussed in this chapter. The data management plan and data analysis will be outlined at the end.

The Purpose of the Study

The purpose of this study was to examine the factors associated with turnover intention among Saudi NGNs in multiple health care organizations located in Jeddah and Makkah, Saudi Arabia. The factors studied include nursing characteristics, job stress, the preceptorship experience, work environment satisfaction, and role conflict and ambiguity. There is a body of knowledge related to the factors that influence turnover intention in the United States and Western countries, yet it is not available in Saudi Arabia. Therefore, the aim was to explore whether the findings in the United States and Western countries also hold true in Saudi Arabia.

Research Questions

- 1.a. What are the characteristics of Saudi NGNs?
- 1.b. What is the perception of job stress of Saudi NGNs?
- 1.c. What is the perception of Saudi NGNs regarding the preceptorship experience?
- 1.d. What is the perception of work environment satisfaction among Saudi NGNs?
- 1.e. What is the perception of Saudi NGNs regarding role conflict and role ambiguity?
- 1.f. What is the perception of turnover intention of Saudi NGNs?
- 2.a. What are the associations among job stress, role conflict and ambiguity, the preceptorship

experience, and work environment satisfaction?

2.b. What are the associations among job stress, role conflict and ambiguity, the preceptorship experience, and work environment satisfaction in regard to turnover intention?

3.a. What are the associations among nursing characteristics, job stress, role conflict and role ambiguity, the preceptorship experience, and work environment satisfaction?

3.b. What are the associations among nurse characteristics, job stress, role conflict and role ambiguity, the preceptorship experience, and work environment satisfaction in regard to turnover intention?

4. Do nursing characteristics, job stress, role conflict and role ambiguity, the preceptorship experience, and work environment satisfaction predict turnover intention when controlling for significant nurse characteristics?

Design of the Study

An exploratory correlational design was used for this study. This design aims to examine large number of interrelationships that exist among the concepts (Polit & Beck, 2012). This design helps to describe aspects of a situation as it naturally occurs and serves as a basis for generating hypotheses and developing effective interventions that might be tested in future experimental or quasi-experimental studies. This study will be the first of its kind implemented in Saudi Arabia.

Using an exploratory correlational design allows for predicting the relationship between the independent variables and the dependent variable but does not support inferences of causality. This design gives information about the nature of the relations between the variables though it lacks control for the potential confounding variables (Cohen et al., 2003). This problem is addressed by statistically controlling for the confounding variables. Another limitation of this

design is that there is no random sampling assignment which may increase the threats of selection bias (Hulley, Cummings, Browner, Grady, & Newman, 2007).

Sampling Strategy

Target Population

The target population is composed of Saudi nurses who recently graduated from nursing schools, have less than 3 years of work experience, and work in a hospital in Jeddah or Makkah, Saudi Arabia. NGNs most commonly experience confusion and dissatisfaction with their roles and the high expectations required for their jobs because they have limited experience and clinical knowledge and skills. In addition, almost 25% of the NGNs demonstrated deficiencies in identifying problems, reporting essential clinical data, and initiating independent nursing interventions (Fero et al., 2009). NGNs also exhibited deficiencies in anticipating relevant medical orders, providing a relevant rationale to support decisions, and differentiating the level of urgency. NGNs practice at the novice or advanced beginner level (Benner, 1984). They are at the early stage of developing clinical skills and applying critical thinking to clinical practice. The first years of practice are usually reported as being the most difficult and stressful time, during which NGNs formulate decisions about their intent to commit to the profession and/or their organization (Hodges et al., 2008; Price, 2009). Benner (1984) proposed in her theory, "From Novice to Expert," that NGNs need at least 3 years of experience to begin to see their actions in terms of long-term goals or an overall plan. Benner noted that NGNs need time to distinguish between relevant and irrelevant attributes and to formulate guidelines for actions in terms of patterns and attributes. Therefore, turnover intention was examined among NGNs throughout their first years of practice. Actual turnover behavior has been reported in other countries among NGNs during their first years of clinical practice, yet comparable evidence was not found in

Saudi Arabia.

Eligibility Criteria

The eligibility criteria for participating in the study included nurses of Saudi nationality who graduated from nursing programs within the last 5 years, had less than 3 years of work experience, and worked in a hospital in Jeddah or Makkah, Saudi Arabia, affiliated with the Ministry of Health (MOH). The eligible participants were recruited regardless of the units in which they work. The exclusion criteria included nurses who graduated more than 5 years ago, had more than 3 years of experience, and were non-Saudi nurses. Nurses who were working in regions other than Jeddah and Makkah, Saudi Arabia, and in nongovernmental hospitals were excluded from the study. Four questions were used to screen the participants for eligibility to participate in the study (see Appendix A). The screening tool was linked on the first page, before the consent form. Individuals who did not meet the criteria were not able to proceed in the study, and their Qualtrics survey closed automatically.

Sampling Method

A purposive sampling was used in this study because of its exploratory nature. When using this sampling method, selection biases are minimized by selecting only participants who meet the inclusion criteria.

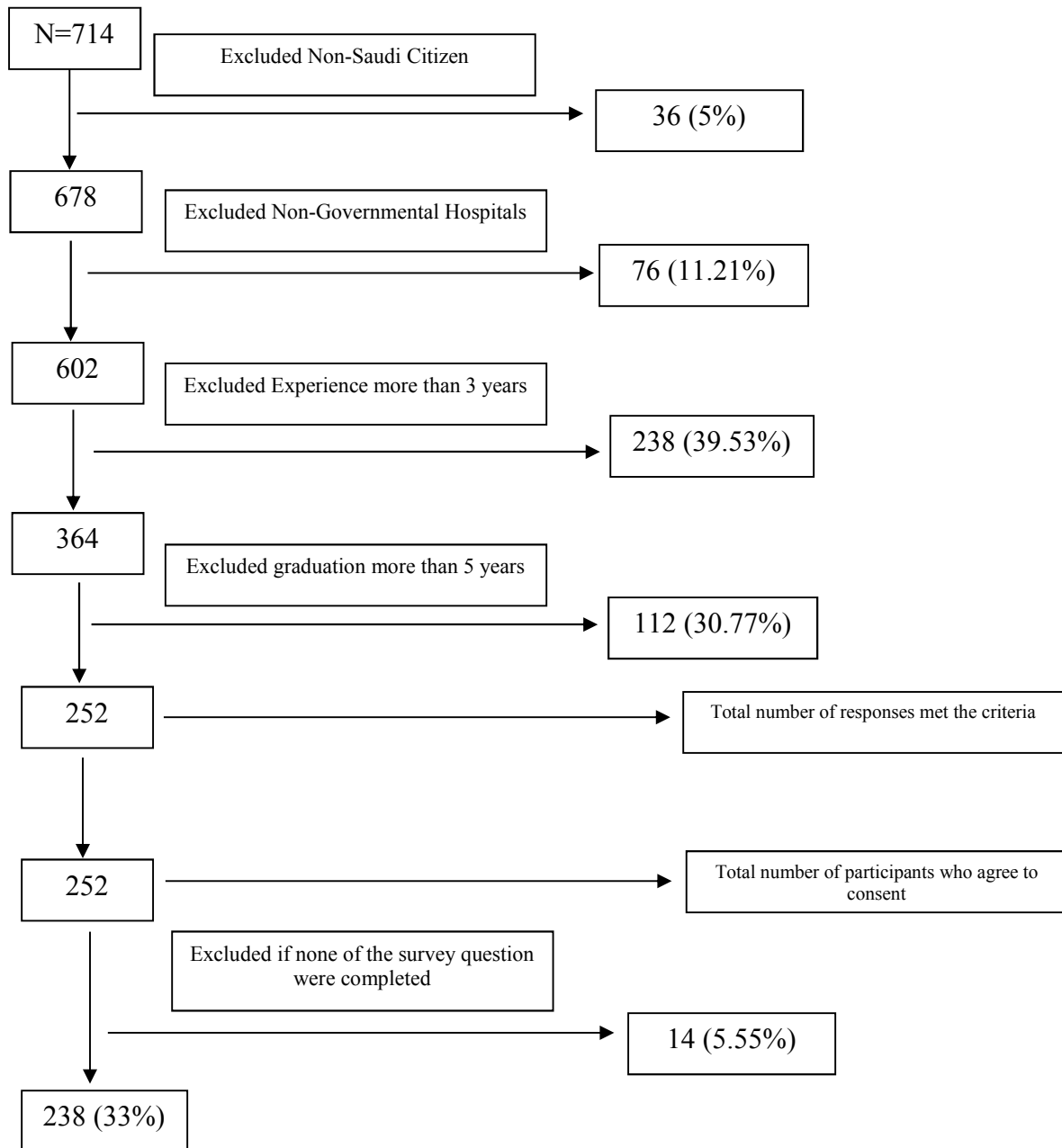
Sample Size

A power analysis following Cohen's (1992) strategy was used to determine the required sample size and ensure that the analysis would be significant when using the minimal sample size, as well as minimizing the risk of committing a Type II error. Cohen (1992) stated that all correlational power analyses are conducted as two-tailed tests with an effect size equal to .15. The level of significance (alpha) was set at 0.05, which means the researcher was prepared to

accept a 5% risk of falsely rejecting the null hypothesis. A statistical power analysis with a power of .80, with a medium effect size of .15, and regression test with four predictors was conducted. Additionally, 40% was added to the recruited sample to compensate for missing data and to pretest the questionnaires because the questionnaires were not available in the Arabic language and were applied on new population. Thus, the minimum number needed for recruitment was 130 participants, but the goal was to recruit 168 participants.

Please see Figure 3 for a description of the responses that were included and excluded from the research study. The total number of participants who accessed the survey was 714. Thirty-six (5%) responses were excluded because non-Saudi nurses gave them. Responses were also excluded because the respondents were working in nongovernmental hospitals, not located in Jeddah and Makkah, and/or hospitals for which the Student Principle Investigator (PI) did not have IRB approval, and these totaled 76 (11.21%). Additionally, 238 (39.53%) responses were excluded because the respondents had more than 3 years of experience. An additional 112 (39.53%) responses were also excluded from the analysis because the respondents graduated more than 5 years ago. The total number of responses that met the criteria was 252, or 35.29% of those who accessed the survey. Responses were also excluded from the study if none of the survey questions were completed ($n = 14$). Thus, the total responses excluded from the study were 476 (66.67%). The total number of responses included in the analysis was 238 out of 714 (33%).

Figure 3: Flowchart of the Responses



Settings

This study was conducted in selected hospitals located in Jeddah and Makkah, Saudi Arabia. Eight hospitals in Jeddah, Saudi Arabia, were included. Seven hospitals affiliated with the MOH were selected from Makkah, Saudi Arabia. All the selected hospitals provide medical services at all levels in most major specialties and subspecialties. Recruiting participants from several governmental hospitals in Jeddah and Makkah increased the likelihood of reaching potential participants with the desired characteristics.

Ethical Considerations

The study was reviewed by the Institutional Review Board (IRB), which protects human subjects. The IRBs approvals were given from the University of Wisconsin-Milwaukee (UWM) and the MOH's Directorate of Health Affairs-Jeddah and Makkah, Medical Research and Studies Department, and King Abdulaziz University Hospital-Unit of Biomedical Ethics (see appendix B for a copy of all the IRB approvals). The MOH was responsible for the review of the study and gave permission to collect data from the hospitals. Approvals by the MOH and UWM were given prior to conducting the study.

All participants who met the inclusion criteria were treated fairly and participated equally in the study. Their participation was voluntary, and no coercion was used. The participants had the right to ask any question, refuse to give information, and withdraw from the study at any time without penalty, loss of benefits, or losing their jobs. Participants' privacy was protected continually by using anonymous questionnaires. In the consent form, the participants were notified that the information they provided would not be shared or used against them. The data were anonymous and were analyzed for research purposes and only reported as an aggregate so that individual respondents could not be identified. The PI informed the participants that the data

they provided would only be used for research purposes. No signature was required on the consent form to enhance the confidentiality of participants' data. Rather, the consent form contained a checkmark box indicating whether the participants agreed or disagreed to participate in the study. The submission of the completed surveys reflects the participants' voluntary consent (See appendix C). Only the PI and the research team can access the completed consent forms and surveys.

Data Collection Process

Self-report questionnaires were used for collecting the data in an electronic form using Qualtrics survey. The self-report questionnaire is a direct method for gathering information about participants' thinking, feelings, and opinions (Grove, Burns, & Gray, 2013). The self-report questionnaire is also considered the most efficient and convenient method, especially when the sample size is large but time and funds are limited. It also offers the possibility of maintaining complete anonymity and reducing the chance of interviewer bias (Grove et al., 2013). Participants were asked to complete six questionnaires, which will be described in detail in the following section.

Independent Variables

The independent variables of this study are the nurse characteristics, job stress, role conflict and ambiguity, preceptorship experience, and work environment satisfaction.

Nurse characteristics.

Description. Please refer to appendix D for the Nursing Characteristics Questionnaire. The PI developed 17 questions to capture the characteristics of the participants. The participants were asked about their age, gender, educational level, marital status, the presence of children, the number of children, caring for dependents other than children, the number of children they care

for, the presence of assistance with housework, dependent care, and/or childcare, and the specialty area of clinical practice. The other nursing characteristics questions included work experience in the current position, previous work experience as a nurse, length of the unit orientation/preceptorship program in the current and previous position, the number of preceptors assigned during the orientation, the length of their working hours per shift, the monthly income, and the name of the hospital they are working at.

Scoring. The participants' age was measured as an interval level. The participants' gender was measured as a nominal level. The response format for the gender variable is (1) male and (2) female. The education level was measured in a nominal level. The educational level's response format is (1) Diploma degree, (2) Baccalaureate degree, (3) Master degree, and (4) other. The name of the university/college where the participants graduated from and the year of graduation should be specified by the participants. If the any of participants select "other", they had to identify the degree, name of the university/college, and the year of graduation.

The marital status was measured as a nominal level. The response format of the marital status is (1) single, (2) married, (3) widowed, (4) divorced, (5) separated from their spouse, (6) engaged, and (7) prefer not to identify. The presence of children response is (1) Yes or (2) No. If the participants answered yes, they should identify the number of children under age of 6, between age of 6 months and 2 years, between age of 3 years and 6 years, between age of 7 years and 12 years, between age of 13 years and 18 years, and over age of 18 years.

Participants had to indicate if they provide care for any dependents other than your children. The response rate for the participants who provide care for dependents are (1) Yes or (2) No. If the participants answered yes, they had to indicate how many people they provide care for other than children. The participants had to indicate if there is someone who assist them with

housework, dependent care, and/or child care. The response rate for the presence of assistant are (1) yes or (2) No. The specialty area of clinical practice was measured at a nominal level. The responses for the specialty area of clinical practice are (1) Medical Unit, (2) Surgical Unit, (3) ICU, (4) CCU, (5) SICU, (6) PICU, (7) NICU, (8) ER, (9) OR, (10) OB/GYNE Unit (11) Pediatric Unit (12) Orthopedic Unit, (13) Rehabilitation Unit, (14) Nephrology Unit/ Dialysis Unit, and (15) other. If the participants select “other”, they had to identify their specialty are of practice. The length of work in the current position had to be indicated by reporting the starting month and year. If the participants had a previous work experience as a nurse, they were asked to report the starting month and year, ending month and year, their role in their previous work.

The length of unit orientation/preceptorship program at the current job and previous job were indicated in months. In addition, participants had to identify the number of different preceptors were assigned to them at their current job and the first job. Participants had to identify their working hours per shift. The response format for the length of the working hours per shift is (1) 8 hours per shift, (2) 12 hours per shift, and (3) other. If the participants selected other, they had to indicate how many hours they are working per shift.

The response format for the monthly income are (1) less than 5,000 SR, (2) between 5,000 SR and less than 10,000 SR, (3) between 10,000 SR and less than 15,000 SR, (4) between 15,00 SR and less than 20,000 SR, and (5) more than 20,000 SR. The response format for the hospital where participants are working at are: (1) King Fahad General Hospital-Jeddah, (2) King Abdulaziz General Hospital-Jeddah, (3) East Jeddah General Hospital, (4) King Abdullah Medical Complex – Jeddah (North Jeddah Hospital), (5) Maternity and Children's Hospital, (6) Al Aziziyah Maternity and Children Hospital, (7) Al-Thager Hospital-Jeddah, (8) Al Noor Specialist Hospital, (9) Ajyad General Hospital, (10) Heraa General Hospital, (11) King

Abdulaziz Hospital-Makkah, (12) King Faisal Hospital-Makkah, (13) Maternity and Children Hospital-Makkah, (14) King Abdullah Medical City Specialist Hospital-Makkah, and (15) Other. If the participants select “other”, they must specify the name of the hospital they are working at.

Job stress.

Description. Job stress was measured by the Expanded Nursing Stress Scale (See appendix E). This scale was developed by French, Lenton, Walters, and Eyles (2000). This scale consists of 57 items and is a self-reported measure. The scale has a list of situations that commonly occur in a practice setting. The Expanded Nursing Stress Scale has nine subscales which are: inadequate preparation (3 items), problems with supervisors (7 items), problems with peers (6 items), conflict with physicians (5 items), death and dying (7 items), discrimination (3 items), workload (9 items), uncertainty related to treatment (9 items), patients and their families (8 items). In this study, all the subscales will be used except the discrimination, leading to a total number of 54 items.

Scoring. The Expanded Nursing Stress Scale included 54 items. It uses a five-point Likert scale. The rating response indicates how stressful a situation is for an individual. The response format is (1) never stressful, (2) occasionally stressful, (3) frequently stressful, (4) always stressful, (5) does not apply. The level of measurement is ordinal but being treated as an interval level measure. The sum of the scores will be calculated. The score ranges from 54 to 270, with high scores indicating greater stress level.

Reliability and validity. The reliability of the scale was examined with a sample of 2,280 nurses including RNs and LPNs in the province of Ontario, Canada. The Coefficient alpha for the whole scale was 0.96 (French et al., 2000). The nine subscales showed adequate Cronbach's alphas that ranged from 0.65 to 0.88 (French et al., 2000). In another study, the coefficient alpha

for the same scale was reported between 0.70 to 0.87 (AbuAlRub, 2004). AbuAlRub (2006) replicated the study that involves a sample size of 300 Jordanian staff nurses. The overall coefficient alpha for the whole scale is 0.89.

Role conflict and ambiguity.

Description. Role conflict and ambiguity was measured by the Role Questionnaire, that was developed by Rizzo, House, and Lirtzman in 1970 (See appendix F). The scale has a 15-item scale that included a list of situations that participants were asked to rate how each situation applies or exists for them personally. Rizzo, House, and Lirtzman defined role conflict as an incompatibility or incongruence within a position, while they defined role ambiguity as an uncertainty within a role or position. The Role Questionnaire addresses six aspects which are: the control over work, lack of clarity, conflicting demands, work and time allocation to perform a good job, and expectations from others. This scale will be completed by Saudi NGNs after consent procedures and was measured once.

Scoring. The Role Questionnaire is a 7-point Likert scale. The response format is (1) very stressful, (2) somewhat stressful, (3) false, (4) neutral, (5) true, (6) somewhat true, (7) very true. The level of measurement is ordinal but being treated as an interval level measurement. The sum of the scores will be calculated. The scores closer to 7 representing a high level of role conflict or role ambiguity of a situation. The score ranges from 30 to 210, with high scores indicating greater role conflict or role ambiguity level.

Reliability and validity. The validity and reliability of the Role Questionnaire were investigated by Rizzo, House, and Lirtzman (1970) in their original study. The authors found the Cronbach's alpha level of reliability of the items is .82. Schuler (1975) reported that the internal reliability for role conflict is .82 and .84 for role ambiguity.

The preceptorship experience.

Description. The preceptorship experience was measured by the Preceptorship Experience Scale (See appendix G). This scale was adapted by Blegen and her colleagues in 2015 using a total of 23-items. The Preceptorship Experience Scale included 16 items that developed by Moore (2009) using the Preceptor Evaluation Survey and 5 items from the Preceptorship Self-Evaluation tool which were developed by Roth and Johnson in 2011. Two items were developed by Blegen and her colleagues.

Scoring. A 5-point Likert response scale formatting was used, which include: (1) extremely disagree, (2) slightly disagree, (3) neither agree nor disagree, (4) slightly agree, and (5) extremely agree. The level of measurement is ordinal but being treated as an interval. This scale is a self-reported measure. The sum of the scores will be calculated. The scores ranged from 23 to 115 with higher scores indicating the higher perceived level of preceptorship experience.

Reliability and validity. The preceptorship experience was tested for its validity and reliability by (Blegen et al., 2015) on the newly licensed registered nurses and preceptors. The scale was reliable with the internal consistency of α coefficient between .86 and .97.

Work environment satisfaction.

Description. Work environment was measured by the Halfer-Graf Job/Work Environment Nursing Satisfaction Survey (See appendix H). This scale is developed by Halfer and Graf in 2006 to determine the perception of the work environment and source of fulfillment over time. The survey is a self-reported measure and consists of 24 items. This survey has six subscales which are: support (8 items), competence (3 items), resourcefulness (5 items), work

satisfaction (3 items), communication (3 items), and retention (2 items). This survey will be completed by Saudi NGNs after consent procedures and will be measured once.

Scoring. The Halfer-Graf Job/Work Environment Nursing Satisfaction Survey is rated on a 4-point Likert scale. The response format is (1) strongly disagree, (2) disagree, (3) agree, and (4) strongly agree. The level of measurement is ordinal but being treated as an interval. The sum of the scores will be calculated. The score ranges from 30 to 210, with high scores indicating greater role conflict or role ambiguity level.

Reliability and validity. The Halfer-Graf Job/Work Environment Nursing Satisfaction Survey was validated by nursing leaders and staff members committee of nursing recruitment and retention. A sample of 122 participants completed the survey to determine the reliability. A Pearson-Brown split reliability of the survey was .89. Test-retest reliabilities was .92 at three months, .96 at 12 months, and .88 at 18 months. Halfer and Graf (2006) conducted another study to identify the perceptions of 84 new graduate nurses related to work environment and job satisfaction at intervals of 3, 6, 12 and 18 months of their employment. The survey had a reliability of .89 and test-retest reliabilities of .92 at 3 months, .92 at 6 months, and .88 at 18 months (Halfer & Graf, 2006).

Dependent Variable

Turnover intention.

Description. Turnover intention was measured by the Turnover Intention Scale (See appendix I). This scale was developed by Cammann, Fichman, Jenkins, and Klesh in 1979. This scale is one of the subscales from the Michigan Organizational Assessment Questionnaire. The Turnover Intention Scale is a self-reported measure. It consists of three items. After the consent procedures, this scale will be completed by Saudi NGNs and will be measured once.

Scoring. The Turnover Intention Scale uses a five-point Likert scale. Participants are asked to indicate how accurately each statement describes them. The response format ranges from (1) extremely disagree, (2) slightly disagree, (3) neither agree nor disagree, (4) slightly agree, and (5) extremely agree. The level of measurement is ordinal but being treated as an interval. The sum of the scores will be calculated. The possible summative score ranges from 3 to 15, with high scores indicating greater intentions to leave the job.

Reliability and validity. The Turnover Intention Scale has significant validity and reliability. This scale was used in various professions, including nursing (Ayamolowo, Irinoye, & Oladoyin, 2013). The scale has an internal consistency coefficient alpha of .77 in Camman et al.'s (1979) study and .75 in Khan and Du's (2014) study.

The Plan for Pretesting the Questionnaires

The student PI obtained written permission from each author to use, modify, and translate all instruments. Information about the instruments, validity, reliability, and scoring were also requested from the authors. The questionnaires were written in both Arabic and English to increase the likelihood of understanding the meaning of the items. In the first process, all the original questionnaires were translated by three professional bilingual Saudi nursing faculty members. The translated versions were reviewed by three professional bilingual faculty members in the nursing field (the panel of experts). In the second process, the translated questionnaires were back-translated from Arabic to English by another three faculty members. The back-translated versions were reviewed by a panel of experts (three faculty members from the College of Nursing in Saudi Arabia). The panel of experts reviewed the items to check the clarity of wording and detect any possible alterations resulting from the translation. The panel of experts compared the translation of each scale to the original language with the goal of achieving clarity

and equivalence between the original versions of the scales and the translated versions. The panel of experts suggested minor changes to some of the translated items. These suggested changes were incorporated into the final versions of the translated scales. The translations often reflected the goal of replacing culturally exclusive language with more universally understood language. In the translation effort, the panel of experts ascertained whether the meanings of the constructs, as defined in the scales, reflected the meanings of the constructs within the target culture.

Once the translation of the scales was completed, a pilot study was conducted on 34 nursing intern students (NISs) to examine the scales' validities and reliabilities before using them for data collection in the research study. Overall, 24 (70%) nursing intern students agreed to participate from Hospital A, which is located in Jeddah, Saudi Arabia. Another 10 (29.4%) nursing intern students agreed to participate from Hospital B, which is located in Makkah, Saudi Arabia. The scales were tested using either a paper format or an electronic format (Qualtrics). The purpose of the pilot study was to identify whether the items were clear, understandable, linguistically and culturally appropriate, inoffensive, and relevant to the construct. The other reasons for pretesting were identifying items that required revising or deleting, adding items, identifying the validity and reliability of the instruments, and estimating the time required to complete the questionnaires. The Arabic and English versions of all the translated and back-translated items were used when the data were collected to increase the likelihood of understanding the meaning of the items.

To test the psychometric properties of the translated and back-translated questionnaires, the PI developed questions for each item. To test the content validity, the PI randomly selected 12 of the participants and asked them to indicate whether the items were (a) not relevant to the

concept being measured, (b) unable to assess the relevance of the item to the concept being measured, (c) relevant but needs minor alteration, or (d) very relevant and succinct. If any of the participants selected either (a) or (b), they were asked to write a comment about the item. To test the clarity of the items, the participants had to choose one of the following options: (a) the item is not clear at all, (b) somewhat clear, (c) quite clear, or (d) very clear. If any of the participants selected either (a) or (b), they had to write a comment about the item.

The average congruency percentage ranges between 93.75% and 100%, which is considered good. This means that all the scale items are relevant to the concepts. The average percentage was also calculated to check the clarity of all the items in each scale. The average percentage was between 91.6% and 100%, which is considered good. The content validity (CVI) for the overall Expanded Nursing Stress Scale was .96. The CVI for the overall Preceptorship Experience Scale was .98. The CVI for the overall Nursing Work Environment Satisfaction Scale was .96, whereas the CVI for the overall Role Conflict and Ambiguity Scale was .94. The CVI for the overall turnover intention scale was .97. These results represent a good CVI, which indicates a good reliability. Therefore, all the scales were valid for use in the research study.

In addition, a focus group (from the same participants who completed the pilot) was conducted to check the conceptual and content equivalence. The focus group reviewed all the items for issues and questions. They were asked whether any of the items should be revised or deleted, or if additional items should be added. The PI discussed the selected items and asked the participants to interpret their meanings to determine whether they understood them. No changes were suggested by the nursing intern students. Because a normal distribution was noted, no further edits or additions were made to the survey's scales.

Instruments Reliability of the Pilot Study

Please refer to Table 1 for an overview of the psychometric properties of the scales used in this pilot study and the reported Cronbach Alpha in the previous studies and for this pilot study. The Expanded Nursing Stress Scale was developed by French, Lenton, Walters, and Eyles (2000) has a Cronbach Alpha coefficient between .65 and .96 for 54 items. This scale used in this pilot study has a Cronbach Alpha coefficient of .949. The Preceptorship Experience Scale was developed by Blegen et al. (2015) has a Cronbach Alpha coefficient between .86 and .97 for 23 items. The scale used in this pilot study has a Cronbach Alpha coefficient of .972. The Nursing Work Environment Satisfaction Scale was developed by Halfer and Graf (2006) has a Cronbach Alpha coefficient between .88-.96 for 24 items. The scale used in this pilot study has a Cronbach Alpha coefficient of .930. The Role Conflict and Ambiguity Scale was developed by Rizzo, House, and Lirtzman, (1970) has a Cronbach Alpha coefficient between .70 and .87 for 14 items. The scale used in this pilot study has a Cronbach Alpha coefficient of .774. The Turnover Intention Scale was developed by Cammann, Fichman, Jenkins, and Klesh (1979) has a Cronbach Alpha coefficient between .77 and .78. The scale used in this pilot study has a Cronbach Alpha coefficient of .766. If item 3 is removed, the Cronbach's Alpha becomes .935. Since the scale has only 3 items, none of the items will be removed from the analysis. Please note that the psychometric properties of the translated scales were calculated. With the population of the Saudi NGNs, all the Cronbach Alpha coefficients were adequate and appropriate for the research purposes.

Recruitment Plan

The nursing directors were approached by the PI for preliminary information about the number of potential participants who met the eligibility criteria in each hospital. The participants

were recruited through the nursing directors and/or the nursing managers at the targeted hospitals. The PI sent a WhatsApp message or an e-mail to the nursing directors and/or the nursing managers of the targeted hospitals with a request for them to forward the study's link to all the Saudi nurses in their hospitals who could potentially meet the inclusion criteria. In addition, hard copies were left with the nursing directors and/or the nursing managers for participants who preferred not to use the online survey.

The invitation letter included a statement explaining that the nurses' employers, nurse directors/managers, direct supervisors, and coworkers would be unaware of the identities of the study participants and what information they provided in response to the instruments used in the study. The invitation letter included information about the study, the eligibility criteria for participating in the study, a link to the electronic survey (Qualtrics), and all the steps required to complete the survey. The link to the electronic survey included a screening tool for the eligibility criteria, consent form, and the study's questionnaires. The nursing directors and/or the nursing managers were asked to forward the invitation letter to their nurses by e-mail or WhatsApp, whichever approach worked best for communication with the potential participants. Because the MOH e-mail system is still in its initial stage and has some technical problems, the staff tend not to check their e-mails regularly. WhatsApp is an application that uses secured text messages with end-to-end encryption (third parties cannot read them). WhatsApp groups are a commonly used method for communication between nurse leaders and nursing staff in MOH organizations.

The data were collected using an electronic format (Qualtrics). Participants were asked to fill out the questionnaires only after obtaining their agreement to participate in the study. The participants were asked to fill out the survey once, and they were told that completing the survey would take approximately 15 to 25 minutes. The participants had the option to save their answers

and return to the questionnaires at any time before they submitted their final answers. The nursing directors and/or the nursing managers were asked to send a first reminder after 15 days, a second reminder after 30 days, and a final reminder after 60 days from the first day of distributing the invitation. The timeline for collecting the data was 3 months, beginning in May 2018. The PI's phone number and e-mail address were provided in the invitation letter. Participants had the opportunity to call, text, or send e-mail messages to the PI at any time during the day.

The data were collected using hard copies and an electronic format (the Qualtrics link) that was sent via e-mails and WhatsApp. The hard copies returned to the nurse directors and nurse managers were collected by the PI and entered into Qualtrics in Saudi Arabia before traveling back to the United States. The answers were loaded, password protected, and backed up on the secure UWM server.

Data Management Plan

The PI evaluated the data for completeness, logic, consistency of answers, and patterns of missing values, as well as to determine whether the missing data would affect her ability to conduct the analyses. The frequency distributions of all variables were checked by running a descriptive analysis. The student PI checked the data for sufficient variability in the dependent measures, demographics for any problems/skew, and assumptions about the intended statistical analyses. The PI kept a log to trace the history and rationale for any necessary modifications.

In the current study, the majority of the participants used Hijri dates when they entered their date of graduation, the length of experience in their current position, and the starting and ending dates of their previous experience. All Hijri dates were converted into Gregorian dates. Most participants also used the Arabic language when they entered their responses into Qualtrics,

and those responses were also converted into the English language by the PI. The total number of responses returned to the PI was 34. Imputation was made only for the age of the participants. All the survey's scales were completed with missing data of less than 10%. Therefore, all the responses were used in the analysis. Data were screened for errors by using the frequency distributions for the categorical variables and descriptive statistics for the continuous variables (see Table 2: Descriptive Analysis of the Nursing Characteristics). All the scores fell within the range of possible values for the variables. Frequency distributions and descriptive statistics were conducted to check for errors. All the items were revised for their appropriate codes. Negatively worded items were reversed. Preliminary analyses were performed to ensure that no violation of the assumptions of normality, linearity, and multicollinearity occurred. To assess normality, the skewness and kurtosis values were checked. The symmetry and peakedness of the distribution of scores were normal (see the Reported Skewness and Kurtosis tables). There were linear relationships between the variables. The multicollinearity was evaluated by assessing the high intercorrelations among the predictors. The correlations between each of the independent variables were not too high, less than .7 (see Table 3: Correlation between the Study Variables and Turnover Intention). The tolerance values were between .571 and .963 (all values were not less than .10), indicating that the multiple correlations of other variables were acceptable. The variance inflation factor (VIF) values were at 1.039 and 1.754; all the values were below 10, indicating that there was no multicollinearity.

In the research study, the majority of the participants also used Hijri dates when they entered their date of graduation, the length of experience in their current position, and the starting and ending dates of their previous experience. All Hijri dates were converted into Gregorian dates. The participants also used the Arabic language when they entered their

responses into Qualtrics. All the responses entered in Arabic were converted into English by the student PI.

Data were screened for errors using the frequency distributions for the categorical variables and descriptive statistics for the continuous variables (see Table 2: Descriptive Analysis of the Nursing Characteristics). All the scores fell within the range of possible values for the variables. Some participants made errors when they calculated their experience in the internship program as the length of orientation in the current position and/or previous position. Other participants calculated their experience in the internship program as a previous experience. Only responses of those participants who had less than 3 years of experience and met the criteria were included in the study. A new column was added in the SPSS to calculate the total experience in years to check whether the participants met the criteria.

Frequency distributions and descriptive statistics were used to check for errors. All items included in the questionnaires were revised for their appropriate codes. Negatively worded items were reversed. Missing data were coded as 999 and verified in SPSS to ensure accurate results. The reliability of each scale was checked and listed in the psychometric properties in the next section. The total scores of each scale were calculated. Preliminary analyses were performed to ensure that no violation of the assumptions of normality, linearity, and multicollinearity occurred. To assess normality, the skewness and kurtosis values were checked. The symmetry and peakedness of the distribution of the scores were normal (See the Reported Skewness and Kurtosis tables.) There were linear relationships between the variables. The multicollinearity was evaluated by assessing the high intercorrelations among the predictors. The correlations between each of the independent variables were not too high (less than .7). Therefore, the scales were valid to use for analysis.

Data Analysis Plan

The data captured through Qualtrics were exported to a format that can be read by the SPSS. All analyses were performed using SPSS program ® version 24.

Descriptive Statistics

A reliability analysis was conducted to check the reliability of each scale and verify whether the concepts described and measured by the instruments in the English literature could be replicated using the translated version for an Arabic population. Once sufficient values were established, the analyses addressed the research questions. The distributions of each process and outcome variable were analyzed using frequency distributions, means, and standard deviations. The frequency gives an overview of the sample, whereas the mean provides an average score for the variables. The standard deviation is important for describing the variability of the data and identifying outliers and skewness (Field, 2009; See Appendix J for the data analysis table).

Descriptive statistics were performed to describe and summarize the nursing characteristics. Continuous variables, such as the age of the participant, the work experience in the current position, the length of the previous work experience, the length of the unit orientation/ preceptorship program, and the number of preceptors assigned during the orientation program, were measured at an interval level. The scores of the continuous variables were described using the mean, median, and standard deviation. Categorical variables such as gender, educational level, marital status, the presence of children, the specialty area of clinical practice, the length of working hours per shift, monthly salary, and the name of the hospital where the participant worked were measured at a nominal level. The categorical variables were described using frequencies, frequency distributions, and percentages.

Inferential Statistics

Once the reliability and concepts measured in the translated instruments on the Saudi NISs had been established, a correlations analysis was conducted. The Pearson correlation coefficient was used to examine the relationships between the independent variables (i.e., nursing characteristics, job stress, role conflict and ambiguity, preceptorship experience, and work environment satisfaction) and the dependent variable (i.e., turnover intention). The same test was used to examine the associations between nurse characteristics and job stress, role conflict and ambiguity, preceptorship experience, and work environment satisfaction. The Pearson correlation coefficient was also used to determine if associations existed between the preceptor role experience and work environment satisfaction, as well as between work environment satisfaction with job stress and role conflict and ambiguity. The inferential statistics were used to address research questions 2 and 3.

Simple linear regression analysis was used to examine variables that have a significant relationship with turnover intention. This test was also used to examine the associations between nurse characteristics and job stress, role conflict and ambiguity, the preceptorship experience, and work environment satisfaction. Simple linear regression was used to determine if there were associations between the preceptorship experience and work environment satisfaction as well as among work environment satisfaction and job stress, role conflict, and ambiguity. Using this analysis helped identify the variables that should be controlled and the independent variable that should be used in the hierarchical multiple regression analysis.

The hierarchical multiple regression analysis was performed to determine the relative contribution of variables in predicting turnover intention. Before running the regression analysis, all regression assumptions and data were examined for the presence of possible outliers. The

hierarchical multiple regression analysis was used to examine the relationships among nursing characteristics, job stress, role conflict and role ambiguity, the preceptorship experience, work environment satisfaction, and turnover intention. Inferential statistics were used to address research question 4.

Chapter Summary

This chapter outlined the purpose of the study, research questions, and hypotheses, as well as the design used for implementing this study, which was an exploratory descriptive correlation. The reasons for using this design were explained. The sampling method was a purposive sample. The target population included nurses who had recently graduated from a nursing program and had less than 3 years of experience. The data was collected from government tertiary hospitals located in Jeddah and Makkah, Saudi Arabia, and the sample size was calculated using the Cohn method of the Power Primer. The total number of responses used to complete the analyses was 238. Finally, the procedure for recruitment and the plan for data collection was identified in this chapter, and the ethical considerations were considered.

The PI developed a questionnaire and used it for collecting nurse characteristics. The descriptions of the six measurement tools, scorings, reported validities, and reliabilities were identified. Overall, the plan for pretesting the instruments was explained in this chapter, as was the data management plan and data analysis plan, including descriptive and inferential statistical analyses.

Chapter IV: Findings of the Research Study

Introduction to the Chapter

This chapter includes the results of the research study and how the data was analyzed and addresses each research question separately. This chapter also includes analyses to evaluate the mediators in the research study.

The Psychometric Properties of the Scales

Please refer to Table 1 for an overview of the psychometric properties of the scales used in this study and the reported Cronbach Alpha in the previous studies and for this research study. The Expanded Nursing Stress Scale was developed by French, Lenton, Walters, and Eyles (2000) has a Cronbach Alpha coefficient between .65 and .96 for 54 items. This scale used in this study has a Cronbach Alpha coefficient of .94. The Preceptorship Experience Scale was developed by Blegen et al. (2015) has a Cronbach Alpha coefficient between .86 and .97 for 23 items. The scale used in this study has a Cronbach Alpha coefficient of .97. The Nursing Work Environment Satisfaction Scale was developed by Halfer and Graf (2006) has a Cronbach Alpha coefficient between .88-.96 for 24 items. The scale used in this study has a Cronbach Alpha coefficient of .92. The Role Conflict and Ambiguity Scale was developed by Rizzo, House, and Lirtzman, (1970) has a Cronbach Alpha coefficient between .70 and .87 for 14 items. The scale used in this study has a Cronbach Alpha coefficient of .73. The Turnover Intention Scale was developed by Cammann, Fichman, Jenkins, and Klesh (1979) has a Cronbach Alpha coefficient between .77 and .78. The scale used in this study has a Cronbach Alpha coefficient of .71. If item 3 is removed, the Cronbach's Alpha becomes .83. Since the scale has only 3 items, none of the items will be removed from the analysis. Please note that the psychometric properties of the

translated scales were calculated. With the population of the Saudi NGNs, all the Cronbach Alpha coefficients were adequate and appropriate for the research purposes.

Results of Analysis Related to Research Question One

Q1.a. What are the Characteristics of Saudi NGNs? The descriptive analysis of the nursing characteristics is presented in Table 2.

Demographics. The total number of responses included in the study was 238 out of 714, for a response rate of 33%. The mean age of participants between the ages of 22 and 39 was 27.48 ± 2.75 . Most of the participants were female (79%). Approximately half of the participants (51.3%) were in a relationship (married or engaged), and 51.7% of the participants received a monthly salary of more than 10,000 SR (around 2,700\$). Half of the participants were working in a non-critical care area and were working 9 hours or more per shift. More than half of the participants (60.1%) were working in one of the hospitals located in Jeddah, Saudi Arabia.

Education. The majority of participants (62.2%) had a bachelor's degree. The participants graduated within the last 2 months to 5 years. More than a third of the participants (44.1%) got their degree from public universities.

Children. The majority of participants indicated that they did not have children (67.2%). For the participants who had children ($n = 74$), 33.8% of them reported that they had children under the age of 2 and 29.7% had children over the age of 2. Thirty (40.5%) participants had two children. More than half of the participants (56.8%) reported that they had assistance with child care.

Dependents other than children (disabled or elderly people). The majority of participants (80.3%) reported that they did not provide care for dependents such as disabled or elderly people. More than half of the participants (22 of 38 participants; 57.4%) provided care

for one dependent person, while half of them (20 of 38 participants; 52.6%) had no assistance with providing care for dependents. Similarly, around half of the participants (52.5%) had no assistance with housework.

Experience in the current position. The mean length of experience in the participants' current positions was 1.65 years (1 year and 8 months), with a standard deviation of 1.06 (1 year and 1 month). The participants' length of experience in their current positions varied between 0.08 (1 month) and 3 years. The mean length of orientation for current positions was 3.68 (3 months and 3 weeks), with a standard deviation of 3.68 (3 month and 2 weeks). The median number of preceptors in the participants' current positions was 2. Over one quarter of participants (27.7%) had one preceptor in their current position.

Previous experience in nursing. Around three quarters of the participants (71%) had no previous experience as a nurse. For those who had previous experience, the mean length of time was 1.11 (1 year and 1 month) with a standard deviation of 0.67 (8 months). Of these participants, three quarters (75.8%) worked as staff nurses. The minimum length of experience in the participants' previous positions was 0.17 (2 months), and the maximum length was 2.75 (2 years and 9 months). The mean of the total years of experience was 1.87 (1 year and 10 months), with a standard deviation of 1.04 (1 year). The minimum total years of experience was .08 (1 month), and the maximum total years of experience was 4.25 (4 years and 3 months). The mean length of the orientation in the previous position was 1.83 (1 month and 3 weeks), with a standard deviation of 1.55 (1 month and 2 weeks). The minimum length of orientation in the previous position was 0 (no orientation), and the maximum length was 6 weeks. The median number of preceptors in the previous position was one.

For all the characteristics of the NGNs, the scores were normally distributed and there were no violations of the skewness and kurtosis assumptions. Please refer to Table 1 for the reported skewness and kurtosis.

Q1.b. What is the Perception of Job Stress of Saudi NGNs? Descriptive statistics for the overall scales are presented in Table 4, and the perceptions of participants related to job stress are presented in Table 5. The NGNs experienced a high level of job stress ($\mu = 145.12$, $SD = 28.95$). The top three items perceived by participants as most stressful were (1) not having enough staff to adequately cover the unit (66% extremely stressful), (2) lack of support by nursing administration (51.3% extremely stressful), and (3) patient death (54.6% extremely stressful). The three items perceived by participants as least stressful were (1) working with nurses of the opposite sex (52.1% never stressful), (2) working with a particular nurse (or nurses) outside of the immediate work setting (37.8% never stressful), and (3) expressing negative feelings toward patients (33.6% never stressful).

1.c. What is the Perception of Saudi NGNs Regarding the Preceptorship Experience? The descriptive statistics for the overall scales are presented in Table 4. The participants' perceptions of preceptorship experience are presented in Table 6. The NGNs reported high levels of positive preceptorship experience ($\mu = 77.93$, $SD = 22.97$). The top three items perceived by the participants as positive preceptorship experience were that (1) the preceptor provided information about patient care (48.7% slightly agree), (2) explained institutional policies (47.9% slightly agree), and (3) explained the roles of the people who work in the unit (42.4% slightly agree). The items perceived by participants to be the negative preceptorship experiences were (1) not encouraging the participants to engage in self-reflection (23.5% extremely disagree), (2) not having time to discuss what was expected of participants

(20.2% slightly disagree), (3) not celebrating successes with the participants (18.5% extremely disagree), and (4) not adjusting patient assignments to give the preceptor and the participant time to work together during shifts (18.5%).

1.d. What is the Perception of Work Environment Satisfaction Among Saudi NGNs?

The descriptive statistics for the overall scales are presented in Table 4. The participants' perceptions of work environment satisfaction were presented in Table 7. The NGNs experienced a moderate level of work environment satisfaction ($\mu = 70.70$, $SD = 11.43$). The three items that received the highest work environment satisfaction score were (1) having the information needed to be able to perform the job (63% agree), (2) being aware of professional opportunities to do the job (61.3% agree), and (3) feeling comfortable for having knowledge and skills to manage the demands of the job (60.9% agree). The three items perceived by participants to be the least satisfying events in the work environment were (1) not being able to participate in professional development programs that were of interest to them (27.3% disagree), (2) not being satisfied with their scheduled days and hours (26.9% disagree), and (3) not having an orientation of an adequate length (25.2% disagree).

1.e. What is the Perception of Saudi NGNs Regarding Role Conflict and Role

Ambiguity? The descriptive statistics for the overall scales are presented in Table 4. The participants' perceptions of role conflict and ambiguity are presented in Table 8. The participants reported a moderate level of role conflict and ambiguity ($\mu = 56.30$, $SD = 8.33$). The top three roles perceived by the participants as the least ambiguous were (1) having to do things that should be done differently (33.2% true), (2) working with two or more groups who operate quite differently (30.7% true), and (3) doing things that are likely to be accepted by one person and not accepted by others (30.7% true). However, the three items participants perceived as having the

highest role conflict and ambiguity were (1) not knowing what their responsibilities were (42.9% false), (2) not knowing exactly what was expected of them (38.2% false), and (3) not knowing that they had divided their time properly (35.3% false).

Q1.f. What is the Perception of Turnover Intention of Saudi NGNs? The descriptive statistics for the overall scales are presented in Table 4. The participants' perceptions of turnover intention are presented in Table 9. The NGNs reported a high level of turnover intention ($\mu = 10.22$, $SD = 3.23$). The highest score received for turnover intention was 35.7%, meaning that participants strongly agreed that they often thought of leaving the organization. The lowest mean score received for turnover intention was 23.9% for the item that asked if participants could choose again, would they choose to work for the current organization, suggesting that participants may not choose to work for their current organization.

Overall, the participants perceived high levels of job stress, positive preceptorship experience, and turnover intention. However, participants experienced a moderate level of work environment satisfaction and role ambiguity. All the scores fell within the normal ranges and were fairly and evenly distributed. Thus, the analyses proceeded according to plan.

Results of Analysis Related to Research Question Two

Q2.a. What are the Associations Among Job Stress, Role Conflict and Role Ambiguity, the Preceptorship Experience, and Work Environment Satisfaction? The correlation between the study variables are summarized in Table 3. A Pearson product-moment correlation coefficient was conducted to examine the relationships between the study variables. The correlation between job stress and preceptorship experience showed a weak negative statistically significant correlation ($r = -.193$, $p = .003$). The finding indicates that when the stress level increases, the preceptorship experience level decreases. Examining the relationship

between job stress and work environment satisfaction also showed a weak negative statistically significant correlation ($r = -.198, p = .002$), meaning that when job stress increases, work environment satisfaction decreases. As the correlation between job stress and role conflict and ambiguity was examined, a moderate positive statistically significant correlation was found ($r = .334, p < .001$), meaning that when job stress increases, role conflict and ambiguity increases as well.

The relationship between preceptorship experience and work environment satisfaction was also examined. A strong positive statistically significant correlation was found between the two variables ($r = .604, p < .001$), indicating that when the preceptorship experience increases, work environment satisfaction increases as well. The correlation between the preceptorship experience and role conflict and ambiguity showed a moderate negative statistically significant correlation ($r = -.468, p < .001$), indicating that as the preceptorship experience decreases, the role conflict and ambiguity level will increase. In addition, the relationship between work environment satisfaction and role conflict and ambiguity showed a moderate negative statistically significant correlation ($r = -.389, p < .001$). The finding indicates that when role conflict and ambiguity increase, the work environment satisfaction decreases.

In summary, all the study variables were correlated significantly with each other. The highest correlation was between preceptorship experience and work environment satisfaction. Whereas, the lowest correlation was between job stress and preceptorship experience. All the study variables are correlated with each other in the expected direction.

Q2.b. What are the Associations Among Nursing Characteristics, Job Stress, Role Conflict and Role Ambiguity, the Preceptorship Experience, and Work Environment Satisfaction in Regard to Turnover Intention? The correlation between the study variables

and turnover intention are summarized in Table 3. The relationship between job stress for nurses and turnover intention was investigated and showed a positive weak statistically significant correlation ($r = .194$; $p = .003$). This result indicates that when the job stress level increases, turnover intention will also increase. The relationship between the preceptorship experience and turnover intention showed a negative weak statistically significant correlation ($r = -.276$, $p < .001$). This result reveals that as the positive preceptorship experience increases, turnover intention decreases. The correlation between the work environment satisfaction and turnover intention showed a moderate negative statistically significant correlation ($r = -.320$, $p < .001$), indicating that as work environment satisfaction increases, turnover intention decreases significantly. The relationship was also examined between role conflict and ambiguity and turnover intention. There was a moderate positive and statistically significant correlation between the two variables ($r = .389$; $p < .001$), indicating that high levels of perceived role conflict and ambiguity are associated with a higher level of turnover intention.

To summarize, all the study variables were significantly correlated with turnover intention. The highest correlation was between role conflict and ambiguity and turnover intention. However, the lowest correlation was between job stress and turnover intention.

Results of Analysis Related to Research Question Three

Q3.a. What are the Associations Among Nursing Characteristics, Job Stress, Role Conflict and Role Ambiguity, the Preceptorship Experience, and Work Environment Satisfaction? Please refer to Table 10 for an overview of the relationship between the nursing characteristics and the study variables. A Pearson product-moment correlation coefficient was conducted to examine the relationships between the continuous variables and the dependent variable (turnover intention). An independent t-test was used to examine the relationships

between the categorical variables that contain only two groups and the dependent variable. One-way ANOVA was used to examine the relationships between the categorical variables that consist of three or more groups and the dependent variable.

The relationship between age and the study variables was examined using the Pearson product-moment correlation coefficient. There were non-statistically significant differences in the scores between age and job stress ($r = .011$, $p = .864$), between age and preceptorship experience ($r = -.040$, $p = .547$), between age and work environment satisfaction ($r = -.013$, $p = .844$), and between age and role conflict and ambiguity ($r = -.007$, $p = .916$).

An independent-samples t-test was conducted to compare whether the means of the study variables differed based on gender. There was a non-statistically significant difference in means for males and females for job stress ($t[224] = .003$, $p = .998$), preceptorship experience ($t[71.356] = .1.001$, $p = .320$), work environment satisfaction ($t[69.722] = -.046$, $p = .964$), and role conflict and ambiguity ($t[224] = .544$, $p = .587$).

An independent-samples t-test was also used to examine the difference in the means between marital status and the study variables. A non-statistically significant difference in the means was found between participants who were in a relationship and participants who were not in a relationship for job stress ($t[223] = .200$, $p = .842$), preceptorship experience ($t[223] = .670$, $p = .503$), work environment satisfaction ($t[223] = 1.552$, $p = .122$), and role conflict and ambiguity ($t[223] = .380$, $p = .702$). The same test was used to examine the difference in the means between salary and the study variables. A non-statistically significant difference in the means was found between salary and job stress ($t[226] = .520$, $p = .604$), salary and preceptorship experience ($t[226] = .258$, $p = .797$), salary and work environment satisfaction ($t[226] = .222$, $p = .824$), and salary and role conflict and ambiguity ($t[226] = -.481$, $p = .631$).

In addition, an independent-samples t-test was used to examine the difference in the means between area of practice and the study variables. A non-statistically significant difference in the means was found between participants who were working in a critical area and a noncritical area for job stress ($t[253] = -1.953, p = .052$), preceptorship experience ($t[253] = -.836, p = .404$), work environment satisfaction ($t[253] = -.166, p = .868$), and role conflict and ambiguity ($t[219.595] = .893, p = .373$). The independent-samples t-test was used to compare the differences in the means of the study variables for participants who were working in a hospital located in Jeddah or Makkah. There was a non-statistically significant difference in the means for both groups for job stress ($t[236] = -.690, p = .491$), preceptorship experience ($t[236] = 1.610, p = .109$), work environment satisfaction ($t[236] = -.221, p = .826$), and role conflict and ambiguity ($t[236] = -1.173, p = .242$).

The difference in the means for working hours was examined for the study variables using the independent-samples t-test. A non-statistically significant difference in the means was found for job stress ($t[228] = -1.469, p = .143$), preceptorship experience ($t[215.211] = 1.468, p = .144$), and role conflict and ambiguity ($t[228] = -.229, p = .819$). However, there was a statistically significant difference in the means between working hours and work environment satisfaction ($t[228] = 2.171, p = .031$). The results showed that participants who were working less than 9 hours per shift (72.71 ± 12.71 hours per shift) had statistically significant higher work environment satisfaction compared to participants who were working 9 hours or more per shift (69.53 ± 10.15 hours per shift).

A one-way ANOVA was conducted to explore whether there were statistically significant differences between means of educational level on the study variables. Participants' responses were divided into three groups—Group 1: Diploma Degree; Group 2: Bachelor's Degree; and

Group 3: Higher Education Degree. There were non-statistically significant differences between the means for the three groups for job stress ($F[2,226] = .155, p = .856$), preceptorship experience ($F[2,226] = 1.330, p = .267$), work environment satisfaction ($F[2,226] = 1.354, p = .260$), and role conflict and ambiguity ($F[2,226] = .159, p = .853$). In addition, the relationships between graduation date and the study variables was investigated using the Pearson product-moment correlation coefficient. There was a non-statistically significant difference between graduation date and job stress ($r = .004, p = .956$), graduation date and preceptorship experience ($r = -.013, p = .866$), graduation date and work environment satisfaction ($r = .055, p = .461$), and graduation date and role conflict and ambiguity ($r = -.096, p = .196$).

A one-way ANOVA was used to examine whether there were any statistically significant differences between means of the type of college and the study variables. Participants' responses were divided into three groups—Group 1: Public University; Group 2: Private University; and Group 3: University Located Outside Saudi Arabia. There was a non-statistically significant difference for the three groups on job stress ($F[2,170] = .380, p = .685$), preceptorship experience ($F[2,170] = 1.818, p = .165$), work environment satisfaction ($F[2,170] = .985, p = .375$), and role conflict and ambiguity ($F[2,170] = .980, p = .377$).

An independent-samples t-test was conducted to examine the difference in the means for participants who had children and who did not have children. There were non-statistically significant differences in the means for both groups on job stress ($t[232] = .075, p = .940$), preceptorship experience ($t[232] = -1.215, p = .226$), work environment satisfaction ($t[232] = -.715, p = .475$), and role conflict and ambiguity ($t[232] = -.138, p = .890$). Additionally, a one-way ANOVA was used to examine whether there were differences in the means between nurses who had children aged 2 years or under, over 2 years, or who have children in both groups.

There were non-statistically significant differences in the means between the three groups on job stress ($F[2,70] = 1.114, p = .334$), preceptorship experience ($F[2,70] = 2.571, p = .084$), work environment satisfaction ($F[2,70] = 2.321, p = .106$), and role conflict and ambiguity ($F[2,70] = 1.446, p = .243$).

The relationship between the total number of children per person and the study variables was also examined using the Pearson product-moment correlation coefficient. There were non-statistically significant relationships on job stress ($r = .030, p = .804$), preceptorship experience ($r = -.151, p = .203$), work environment satisfaction ($r = -.041, p = .730$), and role conflict and ambiguity ($r = -.035, p = .770$). In addition, the independent-samples t-test was conducted to examine the difference in the means on the study variables for participants who had assistance with child care and for those who did not have assistance for child care. There was a non-statistically significant difference in the means for both groups on job stress ($t[72] = -.102, p = .919$), preceptorship experience ($t[72] = .033, p = .974$), work environment satisfaction ($t[72] = -.374, p = .710$), and role conflict and ambiguity ($t[72] = .484, p = .630$).

An independent-samples t-test was used to compare the differences in the means on the study variables for participants who provided care for dependents other than children and for those who did not provide care for dependents. There was a non-statistically significant difference in the means for both groups on job stress ($t[227] = -.469, p = .639$), preceptorship experience ($t[227] = 1.361, p = .175$), work environment satisfaction ($t[227] = -.224, p = .823$), and role conflict and ambiguity ($t[227] = -.674, p = .501$). The relationships between the total number of dependents other than children and the study variables were also investigated using the Pearson product-moment correlation coefficient. There was non-statistically significant difference between total number of dependents other than children and job stress ($r = -.162, p =$

.346), preceptorship experience ($r = .028$, $p = .870$), work environment satisfaction ($r = .104$, $p = .544$), and role conflict and ambiguity ($r = -.184$, $p = .284$).

An independent-samples t-test was conducted to compare the differences in the means of the study variables for participants who had assistance for dependents other than children and for those who did not have assistance for dependents. There were non-statistically significant differences in the means for both groups on job stress ($t[35] = .908$, $p = .370$), preceptorship experience ($t[35] = .397$, $p = .694$), work environment satisfaction ($t[35] = 1.021$, $p = .314$), and role conflict and ambiguity ($t[35] = .227$, $p = .822$).

An independent-samples t-test was also used to examine the differences in the means of the study variables for participants who had assistance with housework and for those who did not have assistance with housework. There was a non-statistically significant difference in scores for both groups on job stress ($t[227] = -.965$, $p = .335$), preceptorship experience ($t[226.894] = 1.838$, $p = .067$), and work environment satisfaction ($t[227] = .603$, $p = .547$). However, there was a statistically significant difference in the means between role conflict and ambiguity and both groups ($t[227] = -2.259$, $p = .025$). This study found that participants who had assistance with housework had statistically significant lower role conflict and ambiguity (54.71 ± 7.46) compared to participants who do not have assistance with housework (57.17 ± 8.76).

The relationships between length of experience in the current position and the study variables were investigated using the Pearson product-moment correlation coefficient. There were non-statistically significant differences in the relationships between the length of experience in the current position and job stress ($r = -.001$, $p = .986$), preceptorship experience ($r = .004$, $p = .952$), work environment satisfaction ($r = -.071$, $p = .316$), and role conflict and ambiguity ($r = .019$, $p = .786$). In addition, the relationships between the length of preceptorship

program/orientation in the current position and the study variables were investigated using the Pearson product-moment correlation coefficient. There were non-statistically significant differences between length of preceptorship program/orientation in the current position and job stress ($r = .081$, $p = .277$), preceptorship experience ($r = .004$, $p = .957$), work environment satisfaction ($r = -.084$, $p = .257$), and role conflict and ambiguity ($r = .075$, $p = .312$).

The relationships between the number of preceptors that participants had in their current position and the study variables was investigated using the Pearson product-moment correlation coefficient. There were non-statistically significant differences between the number of preceptors in the current position and job stress ($r = .070$, $p = .347$), preceptorship experience ($r = -.117$, $p = .113$), work environment satisfaction ($r = -.119$, $p = .109$), and role conflict and ambiguity ($r = .037$, $p = .617$).

An independent-samples t-test was used to examine the differences in the means of the study variables for participants who had previous work experience and who did not have previous work experience. There were non-statistically significant differences in the means for both groups for job stress ($t[229] = -.172$, $p = .883$), preceptorship experience ($t[229] = .998$, $p = .319$), and work environment satisfaction ($t[229] = .906$, $p = .365$). However, there was a statistically significant difference in the means on role conflict and ambiguity between the participants who had previous experience and those who did not have previous experience ($t[229] = -2.423$, $p = .016$). This study found that participants who had previous work experience had a statistically significant lower level of role conflict and ambiguity (53.99 ± 8.71) compared to participants who did not have previous experience (56.96 ± 8.06).

The relationships between the length of previous work experience and the study variables were investigated using the Pearson product-moment correlation coefficient. There were non-

statistically significant differences between length of previous work experience and job stress ($r = .061$, $p = .659$), preceptorship experience ($r = .127$, $p = .359$), work environment satisfaction ($r = -.004$, $p = .977$), and role conflict and ambiguity ($r = .002$, $p = .986$). Moreover, the relationships between the total years of experience and the study variables were also examined using the Pearson product-moment correlation coefficient. There were non-statistically significant differences between length of previous work experience and job stress ($r = -.009$, $p = .899$), preceptorship experience ($r = .045$, $p = .531$), work environment satisfaction ($r = -.099$, $p = .164$), and role conflict and ambiguity ($r = .002$, $p = .973$).

An independent-samples t-test was used to examine the differences in the means of the study variables for participants who were working as staff nurses or as nurse assistants in their previous work experience. There were non-statistically significant differences in means for both groups on job stress ($t[49] = -.472$, $p = .639$), preceptorship experience ($t[49] = -.524$, $p = .603$), work environment satisfaction ($t[49] = -.873$, $p = .387$), and role conflict and ambiguity ($t[49] = -.375$, $p = .709$). Additionally, the relationships between the length of preceptorship program/orientation in the previous work experience and the study variables were also examined by using the Pearson product-moment correlation coefficient. There were non-statistically significant differences between the length of preceptorship program/orientation in the previous work experience and job stress ($r = .023$, $p = .878$), preceptorship experience ($r = -.112$, $p = .449$), work environment satisfaction ($r = -.184$, $p = .211$), and role conflict and ambiguity ($r = .120$, $p = .416$).

In addition, the relationships between the number of preceptors in the previous work experience and the study variables were also examined by using the Pearson product-moment correlation coefficient. There were non-statistically significant differences between the number

of preceptors in the previous work experience and job stress ($r = .210, p = .171$), preceptorship experience ($r = -.103, p = .507$), work environment satisfaction ($r = -.119, p = .443$), and role conflict and ambiguity ($r = .190, p = .218$).

To sum up, the nursing characteristics were not correlated significantly with the study variables except amount of hours worked, assistance with housework, and previous experience. Participants who were working less than 9 hours per shift had statistically significant higher work environment satisfaction compared to participants who were working 9 hours or more per shift. In addition, participants who had assistance with housework had statistically significant lower role conflict and ambiguity compared to participants who did not have assistance with housework. In addition, participants who had previous work experience had statistically significant lower levels of role conflict and ambiguity compared to participants who did not have previous experience. The following associations were approximately significant: area of practice and job stress ($t[253] = -1.953, p = .052$), number of nurses who had children and preceptorship experience ($F[2,70] = 2.571, p = .084$), and assistance with housework and preceptorship experience ($t[226.89] = 1.838, p = .067$).

Q3.b. What are the Relationships between Nursing Characteristics and Turnover

Intention? Please refer to Table 10 for an overview of the relationship between nursing characteristics and turnover intention. The relationship between age and turnover intention was examined by using the Pearson product-moment correlation coefficient. There was a non-statistically significant difference between the two variables ($r = .025, p = .703$). An independent-samples t-test was conducted to compare the turnover intention scores for males and females. There was a non-statistically significant difference in scores for both groups on turnover intention ($t[244] = 1.385, p = .167$). An independent-samples t-test was also used to examine the

relationship between marital status and turnover intention. A non-statistically significant difference in scores was found between participants who were in a relationship and participants who were not in a relationship ($t[223] = -1.679, p = .094$). The same test was used to examine the relationship between salary and turnover intention. A non-statistically significant difference was found between the two variables ($t[226] = -1.286, p = .200$). In addition, an independent-samples t-test was used to examine the relationship between turnover intention and area of practice. A non-statistically significant difference score was found between participants who were working in a critical area and a noncritical area ($t[235] = -.632, p = .528$).

An independent-samples t-test was used to compare the turnover intention for participants who were working in one of the hospitals located in Jeddah or Makkah. There was a non-statistically significant difference in scores for both groups on turnover intention ($t[236] = -1.845, p = .066$). The relationship of the working hours was examined with turnover intention using an independent-samples t-test. A non-statistically significant difference was found between working hours and turnover intention ($t[228] = -1.628, p = .105$).

A one-way ANOVA was conducted to explore the relationship of the educational level on turnover intention. Participants' responses were divided into three groups—Group 1: Diploma Degree; Group 2: Bachelor's Degree; and Group 3: Higher Education Degree. There was a non-statistically significant difference for the three groups on turnover intention ($F[2,226] = 2.457, p = .088$).

The relationship between graduation date and the dependent variable was investigated using the Pearson product-moment correlation coefficient. There was a non-statistically significant difference between the graduation date and turnover intention ($r = -.046, p = .534$). A one-way ANOVA was used to examine the relationship of the college on turnover intention.

Participants' responses were divided into three groups—Group 1: Public University; Group 2: Private University; and Group 3: University Located Outside the KSA. There was a non-statistically significant difference for the three groups on turnover intention ($F[2,170] = 1.419, p = .245$).

An independent-samples t-test was conducted to compare the turnover intention for participants who had children and for those who did not have children. There was no statistically significant difference in scores for both groups on turnover intention ($t[232] = 1.838, p = .067$). The relationship between nurses who had children aged 2 years or under, over 2 years, or who had children in both groups on the dependent variable was investigated using a one-way ANOVA. There was a non-statistically significant difference between the three groups on turnover intention ($F[2,70] = .068, p = .934$). The relationship between the total number of children per person and turnover intention was also examined using the Pearson product-moment correlation coefficient. There was a non-statistically significant difference between both variables ($r = -.134, p = .257$).

An independent-samples t-test was conducted to compare the turnover intention for participants who had assistance for child care and for those who did not have assistance for child care. There was a non-statistically significant difference in scores for both groups on turnover intention ($t[72] = .436, p = .664$). An independent-samples t-test was used to compare the turnover intention for participants who provided care for dependents other than children and for those who did not provide care for dependents. There was a non-statistically significant difference in scores for both groups on turnover intention ($t[227] = -.007, p = .994$). The relationship between the total number of dependents other than children and the dependent variable was investigated using the Pearson product-moment correlation coefficient. There was a

non-statistically significant difference between total number of dependents other than children and turnover intention ($r = -.051, p = .767$).

An independent-samples t-test was conducted to compare the turnover intention for participants who had assistance for dependents other than children and for those who did not have assistance for dependents. There was a non-statistically significant difference in scores for both groups on turnover intention ($t[35] = .254, p = .801$). An independent-samples t-test was also used to compare the turnover intention for participants who had assistance with housework and for those who did not have assistance with housework. There was a non-statistically significant difference in scores for both groups on turnover intention ($t[227] = -1.333, p = .184$). The relationship between the length of experience in the current position and the dependent variable was investigated using the Pearson product-moment correlation coefficient. There was a non-statistically significant difference between length of experience in the current position and turnover intention ($r = .040, p = .576$).

The relationship between the length of preceptorship program/orientation in the current position and the dependent variable was investigated using the Pearson product-moment correlation coefficient. There was a non-statistically significant difference between length of preceptorship program/orientation in the current position and turnover intention ($r = .064, p = .389$). The relationship between the number of preceptors in the current position and the dependent variable was investigated using the Pearson product-moment correlation coefficient. There was a non-statistically significant difference between the number of preceptors in the current position and turnover intention ($r = .001, p = .989$). An independent-samples t-test was used to compare the turnover intention for participants who had previous work experience and

those who did not have previous work experience. There was a non-statistically significant difference in scores for both groups on turnover intention ($t[229] = .005, p = .996$).

The relationship between the length of previous work experience and the dependent variable was investigated using the Pearson product-moment correlation coefficient. There was a non-statistically significant difference between length of previous work experience and turnover intention ($r = .069, p = .621$). The relationship between the total years of experience and the dependent variable was also examined by using the Pearson product-moment correlation coefficient. There was a non-statistically significant difference between length of previous work experience and turnover intention ($r = .045, p = .503$). An independent-samples t-test was used to compare the turnover intention for participants who were working as staff nurses or as nurse assistants in their previous work experience. There was a non-statistically significant difference in scores for both groups on turnover intention ($t[49] = -.114, p = .910$).

The relationship between the length of preceptorship program/orientation in the previous work experience and the dependent variable was also examined by using the Pearson product-moment correlation coefficient. There was a non-statistically significant difference between the length of preceptorship program/orientation in the previous work experience and turnover intention ($r = .070, p = .634$). In addition, the relationship between the number of preceptors in the previous work experience and the dependent variable was also examined by using the Pearson product-moment correlation coefficient. There was a non-statistically significant difference between the number of preceptors in the previous work experience and turnover intention ($r = .107, p = .491$).

To sum up, none of the nursing characteristics were associated with turnover intention. However, the following associations were approximately significant with turnover intention:

hospital location ($t[236] = -1.845, p = .066$), educational level ($F[2,226] = 2.457, p = .088$), and parental status ($t[232] = 1.838, p = .067$).

Results of Analysis Related to Research Question Four

Q4. Do Nursing Characteristics, Job Stress, Role Conflict and Role Ambiguity, the Preceptorship Experience, and Work Environment Satisfaction Predict Turnover Intention When Controlling for Significant Nursing Characteristics? Please refer to Table 11 for the summary of the hierarchical multiple regression used to predict the factors associated with turnover intention for Saudi NGNs. A hierarchical multiple regression analysis was used to assess the ability of job stress, role conflict and ambiguity, preceptorship experience, and work environment satisfaction to predict the levels of turnover intention after controlling for the influence of significant nursing characteristics such as working hours, assistance with housework, and previous work experience.

A three-stage hierarchical multiple regression analysis was used to predict the level of perceived turnover intention as reported by Saudi NGNs. In the first block, working hours, assistance with housework, and previous experience were entered as a covariate. The nursing characteristics (working hours, assistant with housework, and previous experience) were not significant covariates ($F[3,224] = 1.551, p = .202$). Working hours, assistance with housework, and previous experience explained .07% of the variance in the perceived turnover intention (Adjusted $R^2 = .007$).

In the second block, job stress and preceptorship experience were entered simultaneously into the model. When job stress and preceptorship experience were added, the prediction model was statistically significant ($F[5,222] = 5.284, p < .001$). Job stress and preceptorship experience explained 8.6% of the variance in the perceived turnover intention (Adjusted $R^2 = .086$).

Preceptorship experience had a higher beta value ($b = -.218, p = .001$) than job stress ($b = .174, p = .007$).

In the third block, work environment satisfaction and role conflict and ambiguity were entered simultaneously as the primary variables of interest. In this step, the model increased substantially in its predictive power ($F[7,220] = 7.615, p < .001$). The total variance explained by the model was 16.9% (Adjusted $R^2 = .169$). The stronger predictor of the set was role conflict and ambiguity ($\beta = .275, p < .001$), followed by work environment satisfaction ($\beta = -.190, p = .012$). Generally, with all other variables in the analysis statistically controlled, those who perceived higher role conflict and ambiguity and had lower work environment satisfaction reported greater turnover intention. Based on the structure coefficients, it appears that the latent variable described by the model is best indicated by role conflict and ambiguity.

In conclusion, role conflict and ambiguity and environment satisfaction are significant predictors directly associated with turnover intention. The stronger predictor for turnover intention was role conflict and ambiguity. Please refer to Figure 6 for the final conceptual framework of the factors associated with turnover intention among newly graduated Saudi nurses. The model explained 17% of the variance in turnover intention. Please refer to Figure 6 for the final conceptual framework of the factors associated with turnover intention among Saudi NGNs.

Evaluation of the Mediations

1. Testing the Mediation Effect of Role Conflict and Ambiguity Between Job Stress and Turnover Intention

Please refer to Table 12 for an overview of the steps performed using a hierarchical multiple regression analysis to test the mediation effect of role conflict and ambiguity between

job stress and turnover intention. When a hierarchical multiple regression was conducted, two mediators were observed. Four steps must be tested to confirm that there were mediating variables. To confirm that role conflict and ambiguity was a mediating variable for job stress, the four steps had to be met. In the first step, the significance of the relationship between the initial independent variable and dependent variable had to be confirmed. There was a statistically significant relationship between job stress and turnover intention ($\beta = .194, p = .003$). In the second step, the significance of the relationship between the initial independent variable and the mediator had to be confirmed. A statistically significant relationship was found between job stress and role conflict and ambiguity ($\beta = .334, p < .001$). In the third step, the significance of the relationship between the mediator and the dependent variable in the presence of the independent variable had to be confirmed. In the fourth step, the nonsignificant relationship (or the meaningful reduction in effect) between the initial independent variable and the dependent variable in the presence of the mediator had to be confirmed (The same regression analysis was used for the third and fourth steps). Role conflict and ambiguity was statistically significant with turnover intention in the presence of job stress ($\beta = .359, p < .001$). However, the relationship between job stress and turnover intention was not statistically significant in the presence of role conflict and ambiguity ($\beta = .074, p = .249$). In this case, it is confirmed that role conflict and ambiguity fully mediate (perfect or complete mediation) the relationship between job stress and turnover intention. The unmediated and mediated relationships of role conflict and ambiguity between job stress and turnover intention are presented in Figure 5.

To evaluate the statistical significance of the indirect effect in the mediated model, the Sobel and Aroian tests were performed. The results of both tests indicated that the indirect effect in the mediated model was statistically significant (Sobel: $z = 3.849, p < .001$; Aroian: $z =$

3.817, $p < .001$). The Freedman-Schatzkin test was performed to assess the relative strengths of the paths from the job stress variable to the turnover intention variable in the unmediated model versus the mediated model based on the independent t-test. The path between the job stress variable to the turnover intention variable was significantly lower in the mediated model compared with the unmediated model ($t[236] = 5.901, p < .001$). The effect of job stress on turnover intention was statistically significant in the mediating model when role conflict and ambiguity was included as a mediator. We conclude that complete mediation was observed. The relative strength of the mediation effect was examined using the beta coefficients that were associated with the paths in the mediation model. The indirect effect was $= .334 * .359 = .120$. The direct effect was $= .194$. The relative strength of the mediation effect is $= .120 / .194 = .6186$. Most of the effect of job stress on turnover intention (61.86%) was mediated through role conflict and ambiguity. To sum up, it was statistically confirmed that role conflict and ambiguity fully mediated (perfect or complete mediation) the relationship between the job stress and turnover intention.

2. Testing the Mediation Effect of Role Conflict and Ambiguity Between Preceptorship Experience and Turnover Intention

The steps performed using a hierarchical multiple regression analysis to test the mediation effect of role conflict and ambiguity between preceptorship experience and turnover intention are presented in Table 13. To confirm that role conflict and ambiguity is also a mediating variable for preceptorship experience, the four steps that were previously mentioned were tested. In the first step of the mediating model, there was a statistically significant relationship between preceptorship experience and turnover intention ($\beta = -.276, p < .001$). In the second step, there was a statistically significant relationship between perceived preceptorship

experience and role conflict and ambiguity ($\beta = -.468, p < .001$). In the last two steps, role conflict and ambiguity was statistically significant with turnover intention in the presence of preceptorship experience ($\beta = .326, p < .001$). However, the relationship between preceptorship experience and turnover intention was not statistically significant in the presence of role conflict and ambiguity ($\beta = -.123, p = .071$). In this case, it is confirmed that role conflict and ambiguity fully mediates (perfect or complete mediation) the relationship between preceptorship experience and turnover intention. The unmediated and mediated relationships of role conflict and ambiguity between preceptorship experience and turnover intention is presented in Figure 6.

To evaluate the statistical significance of the indirect effect in the mediated model, the Sobel and Aroian tests were performed. The results of the both tests indicated that the indirect effect was statistically significant (Sobel: $z = -4.182, p < .001$; Aroian: $z = -4.159, p < .001$). The Freedman-Schatzkin test was performed to assess the relative strengths of the paths from the preceptorship experience variable to the turnover intention variable in the unmediated model versus the mediated model based on an independent t-test. The path between the preceptorship experience variable to the turnover intention variable was significantly lower in the mediated model compared with the unmediated model ($t[236] = -4.698, p < .001$). Given that the effect of preceptorship experience on turnover intention was statistically significant in the mediating model when role conflict and ambiguity was included as a mediator, we conclude that complete mediation was observed. The relative strength of the mediation effect was examined using the beta coefficients that were associated with the paths in the mediation model. The indirect effect was $-.468 * .326 = -.153$. The direct effect was $-.276$. The relative strength of the mediation effect $= -.153 / -.276 = .5543$. More than half (55.43%) of the effect of preceptorship experience on turnover intention was mediated through role conflict and ambiguity. In summary, it was

statistically confirmed that role conflict and ambiguity fully mediated (perfect or complete mediation) the relationship between the preceptorship experience and turnover intention.

3. Test the Mediation Effect of Work Environment Satisfaction Between Job Stress and Turnover Intention

The steps performed using a hierarchical multiple regression analysis to test the mediation effect of the work environment satisfaction between job stress and turnover intention is presented in Table 14. In addition, the mediating effect of work environment satisfaction between job stress and turnover intention was tested. The first step was confirmed previously by finding a statistically significant relationship between job stress and turnover intention ($\beta = .194$, $p = .003$). In the second step, a statistically significant relationship was found between job stress and work environment satisfaction ($\beta = -.198$, $p = .002$). In the third step, work environment satisfaction was statistically significant with turnover intention in the presence of job stress ($\beta = -.294$, $p < .001$). In the fourth step, the relationship between job stress and turnover intention was statistically significant in the presence of work environment satisfaction ($\beta = .136$, $p = .031$). However, the mediated regression coefficient of job stress ($\beta = .136$, $p = .031$) was reliably lower than what it was in the unmediated model ($\beta = .194$, $p = .003$). Thus, the presence of the mediator (work environment satisfaction) has diminished but not eliminated the direct predictive power of job stress. In this case, work environment satisfaction partially mediated the relationship between job stress and turnover intention. The unmediated and mediated relationships of work environment satisfaction between job stress and turnover intention is presented in Figure 7.

The Sobel and Arian tests were performed to test the statistical significance of the mediation effect. The results of both tests indicated that the indirect effect was statistically

significant. In the Sobel test, the result was $z = 2.584$, $p = .009$; in the Aroian test, it was $z = 2.543$, $p = .011$. The Freedman-Schatzkin test was performed to assess the relative strengths of the paths from the job stress variable to the turnover intention variable in the unmediated model versus the mediated model based on the independent t-test. The path between the job stress variable to the turnover intention variable was significantly lower in the mediated model compared with the unmediated model ($t[236] = 5.025$, $p < .001$). Given that the effect of job stress on turnover intention was statistically significant in the mediating model when work environment satisfaction was included as a mediator, we conclude that complete mediation was observed. The relative strength of the mediation effect was examined using beta coefficients associated with the paths in the mediation model. The indirect effect was $= -.198 * -.294 = .058$. The direct effect was $= .194$. The relative strength of the mediation effect was $= .058/.194 = .2990$. Less than one third (29.90%) of the effect of job stress on turnover intention was mediated through work environment satisfaction. To sum up, it was statistically confirmed that work environment satisfaction partially mediated the relationship between job stress and turnover intention.

4. Test the Mediation Effect of Work Environment Satisfaction Between Preceptorship Experience and Turnover Intention

The steps performed using a hierarchical multiple regression analysis to test the mediation effect of work environment satisfaction between preceptorship experience and turnover intention is presented in Table 15. The mediating effect of work environment satisfaction between preceptorship experience and turnover intention was also tested. The first step found a statistically significant relationship between preceptorship experience and turnover intention ($\beta = -.276$, $p < .001$). In the second step, a statistically significant relationship was

found between preceptorship experience and work environment satisfaction ($\beta = .604, p < .001$). In the third step, work environment satisfaction was statistically significant with turnover intention in the presence of preceptorship experience ($\beta = -.243, p = .002$). In the fourth step, the relationship between preceptorship experience and turnover intention was not statistically significant in the presence of work environment satisfaction ($\beta = -.129, p = .095$). In this case, it is confirmed that work environment satisfaction fully mediated (perfect or complete mediation) the relationship between the preceptorship experience and turnover intention. The unmediated and mediated relationships of work environment satisfaction between preceptorship experience and turnover intention is presented in Figure 8.

Sobel and Arian tests were performed to test the statistical significance of the mediation effect. The results of the both tests indicated that the indirect effect was statistically significant (Sobel: $z = -3.027, p = .002$; Aroian: $z = -3.017, p = .002$). The Freedman-Schatzkin test was performed to assess the relative strengths of the paths from the preceptorship experience variable to the turnover intention variable in the unmediated model versus the mediated model based on the independent t-test. The path from the preceptorship experience variable to the turnover intention variable was significantly lower in the mediated model compared with the unmediated model ($t[236] = -3.159, p = .002$). Given that the effect of preceptorship experience on turnover intention was statistically significant in the mediating model when work environment satisfaction was included as a mediator, we conclude that complete mediation was observed. The relative strength of the mediation effect was examined using the beta coefficients that are associated with the paths in the mediation model. The indirect effect was $= .604 * -.243 = -.147$. The direct effect was $= -.276$. The relative strength of the mediation effect was $= -.147 / -.276 = .5326$. We found that 53.26% of the effect of the preceptorship experience on turnover intention was mediated

through work environment satisfaction. To summarize, it was statistically confirmed that work environment satisfaction fully mediated (perfect or complete mediation) the relationship between preceptorship experience and turnover intention.

Chapter Summary

The purpose of this study was to examine the nursing characteristics of job stress, role conflict and ambiguity, preceptorship experience, and work environment satisfaction and determine how they are associated with turnover intention among Saudi NGNs in multiple health care organizations located in Jeddah and Makkah, Saudi Arabia. In this study, job stress, preceptorship experience, work environment satisfaction, and role conflict and ambiguity were significantly correlated with turnover intention. Working hours was significantly associated with work environment satisfaction. However, having assistance with housework and the presence of previous experience were associated with a lower level of role conflict and ambiguity. None of the nursing characteristics were statistically associated with turnover intention. In the final regression analysis, role conflict and ambiguity, in addition to work environment satisfaction, were significant predictors that were directly associated with turnover intention. The stronger predictor for turnover intention was role conflict and ambiguity. Saudi NGNs who experienced a high level of role conflict and ambiguity reported a higher turnover intention. High role conflict and ambiguity and low work environment satisfaction mediated the relationships between job stress and preceptorship experience with turnover intention. Therefore, to address the turnover intention among Saudi NGNs, Saudi leadership need to understand the importance of resolving role conflict and ambiguity and enhance work environment satisfaction.

Chapter V: Discussion

Introduction to the Chapter

This chapter includes the discussion about the main findings of the research study and the relevance of the results from the current research study. In addition, the implications for clinical practice, policy, and education will be presented in this chapter. The limitation from this study and future recommendations will be discussed in the final sections of this chapter.

Summary and Discussion of the Main Findings

The findings will be discussed based on the research questions and will be compared with previous studies. Please refer to Figure 4 to see the final model of the results of the research study. This section describes specific results regarding the research questions.

Findings from the Research Question One

Q1.a: What are the Characteristics of Saudi NGNs? The total number of responses included in the current research study was 238 out of 714, resulting in a response rate of 33%. The mean age of the participants was 27.48 ± 2.75 . Most of the participants were female (79%). Approximately half of the participants were married or engaged and received a monthly salary of more than 10,000 SR. Half of the participants were working in noncritical care areas and were working 9 hours or more per shift. More than half of the participants (60.1%) were working in one of the hospitals located in Jeddah, Saudi Arabia. Most of the participants (62.2%) had a bachelor's degree. About two-thirds of the participants (67.2%) indicated that they did not have children. The majority of the participants (80.3%) reported that they did not provide care for dependents such as disabled or elderly people. The average years of experience was 1.87 (1 year and 10 months), with a standard deviation of 1.04 (1 year). The characteristics of the Saudi NGNs are consistent with the literature except the current work experience and the total years of

experience in nursing. The work experience in nursing of the participants in their current positions in previous study ranges from 5 years to 10 years. The total years of experience in nursing of the participants in the previous studies ranges between 6 years and 20 years.

1.b. What is the Perception of Job Stress of Saudi NGNs? In the current research study, the Saudi NGNs experienced a high level of job stress. Previous studies conducted in Taiwan and Iran did not support the findings of this current study. The aforementioned studies found that nurses reported a medium level of job stress (Hu et al., 2015; Mosadeghrad, 2013). The inconsistency between the studies might be attributed to the fact that nurses who participated in in the Taiwanese and Iranian studies had more than one year of experience. Evidence showed that the most stressful period for NGNs is the first 3–6 months of their employment because they need to adjust to their work and cope with the challenges of new nursing roles in a short period (Godinez et al., 1999; Greenwood, 2000; Jarvis, 2000; Lee et al., 2009). Saudi NGNs experienced a high level of job stress as they became fully responsible for their patients. A high level of job stress among NGNs could be attributed to the fact that their role had changed from student to nursing staff. Saudi NGNs may also struggle with uncertainty and fear due to their perceived expectations and the actual expectations of the job (Fareed, 2017).

In the current study, the three greatest causes of job stress reported by Saudi NGNs are that (1) there is not enough staff to adequately cover the unit, (2) lack of support by nursing administration, and (3) patient death. These findings are consistent with previous studies. The adequacy of staffing was reported in previous studies as a major issue for the nurses (Aiken et al., 2011; Choi et al., 2011; DeKeyser Ganz & Toren, 2014; Saber, 2014; Van den Heede et al., 2013; Nantsupawat et al., 2017). Inadequate staffing reduces patient contact time, interrupts the effectiveness of care administered to patients, and increases the burden on the available nursing

staff (Buchan 2010; Cottingham, DiBartolo, Battistoni, & Brown, 2011; Ford, 2011; Wang & Yuan, 2018), and negatively affects patient outcomes (Wang & Yuan, 2018). These issues in turn increase job stress. Maintaining an optimum staffing level helps NGNs to ask questions, seek help and support from others, and reduce role conflict and ambiguity with organizational rules and procedures.

Lack of support by administration was also identified by previous studies as a source of job stress (Blake, Leach, Robbins, Pike, & Needleman, 2013; DeKeyser Ganz & Toren, 2014; Goetzel et al., 2009; Mosadeghrad, 2013; Saber, 2014). During the first years of employment, NGNs need a supportive administration to manage the staffing levels and patient care workload and to provide constructive feedback about job performance. Death and dying were reported as the most stressful factors for new nurses (McVicar, 2003; Riklikienė, Krušinskaitė, Gatautis, & Bagdonaitė, 2015). Lack of NGNs' preparation to handle patients' emotional needs such as caring for suffering patients and dealing with death and caring for dying patients and the fear of making mistakes were identified as sources of NGNs' stress (Jones-Bell et al., 2014; Kaddoura, Van-Dyke, & Yang, 2016; Missen, McKenna, & Beauchamp, 2014; Park & Jones, 2010; Pfaff, Baxter, Jack, & Ploeg, 2014).

In the current study, the three items perceived by the participants as the least stressful events were (1) working with nurses of the opposite sex, (2) working with a particular nurse (or nurses) outside the immediate work setting, and (3) expressing negative feelings toward patients to other personnel on the unit. The findings of this study reveal that Saudi NGNs did not have difficulties with socialization, relationships, nor communication issues with nursing staff and other personnel in their unit or outside their unit. Unlike the previous studies, NGNs reported an increased challenge during their transition into clinical practice as a result of difficulties with

socialization and poor communication with the health care team members (Laschinger, 2010; Laschinger & Grau, 2012; MacKusick & Minick, 2010; Parker et al., 2014).

1.c. What is the Perception of Saudi NGNs Regarding the Preceptorship

Experience? The NGNs reported a high level of positive preceptorship experience. This finding is consistent with previous studies where newly licensed registered nurses reported a high level of preceptor role effectiveness and rated their preceptorship experience more positively (Blegen et al., 2015; Bontrager, Hart, & Mareno, 2016). The NGNs had a good experience during the preceptorship orientation that resulted from gradually transitioning into their role, explaining theory and its application by the preceptors, learning new skills without being criticized, and being familiar with the unit and staff (Morton, 2014). Other factors that affected their experience include: one-on-one with preceptors, having preceptors available to answer questions, having the same preceptor, and having a preceptor for 3 months (Morton, 2014). Saudi NGNs reported a high level of positive preceptorship experience because they need support in their early career.

In the current research study, the top three items perceived by the Saudi NGNs as a positive preceptorship experience were that (1) the preceptor provided information about how to care for patients, (2) explained institutional policies, and (3) explained the roles of the people who worked in the unit. These findings are consistent with previous studies where the role of the preceptors contributes or hinders novice nurses to stay or leave their positions during their first year of employment. Most of the studies indicated that preceptors offer assistance, guidance, teaching, and encouragement through one-on-one interaction with the preceptees (Lee et al., 2009; Sandau & Halm, 2011). This close interaction is significant for the NGNs to be able to adapt to their roles, develop clinical skills, understand the clinical environment, and gain

confidence. The NGNs depend on the preceptors to answer their questions, provide guidance, and lessen the knowledge gaps (Fielden, 2012).

In this study, the items reported by the participants as the most negative preceptorship experiences were (1) not encouraging the participants to engage in self-reflection, (2) not having time to discuss what was expected from their roles, (3) not celebrating successes with the participants, and (4) not adjusting patient assignment to give the preceptor and the participant time to work together during the shift. These results are consistent with previous studies. The findings from this study suggested that preceptors should actively engage the NGNs into active dialogue about making decisions related to nursing care and give them time to examine their insights to solve problems (Kaddoura, 2013). NGNs are required to care for patients independently while receiving limited guidance from nursing supervisors in a highly stressful environment. According to Avis et al. (2013) and Craig et al. (2012), the enhancement of the preceptees' confidence is related to the preceptors' support and feedback on clinical performance and areas where they need improvement. In addition, self-awareness and recognition of the preceptees' ability were linked to the enhancement of their confidence (Maxwell, Brigham, Logan, & Smith, 2011; Valente & Wright, 2007).

Preceptors played a pivotal role in promoting autonomy in the NGNs by gradually stepping back from direct patient care. One of the participants in Kaddoura's (2013) study reported that gradually stepping back allowed her to analyze and think deeply about her actions. Appropriate delegation of care was viewed by the new graduates as an important factor for enhancing autonomy (Hickey, 2009). The preceptors should allow the NGNs to reflect on their practice when they care for patients while observing and providing less guidance to ensure that preceptees demonstrate clinical competency when performing the tasks.

Being able to set and discuss issues with the preceptors allowed the preceptees to feel supported (Jones et al., 2014). In the study conducted by Sandau and Halm (2011), Maxwell et al. (2011), and Harrison-White and Simons (2013), NGNs mentioned that giving timely feedback, addressing the questions effectively, offering constructive criticism and guidance if someone is struggling, and setting goals were the qualities that they expected from the prospective preceptors. They also mentioned that preceptors must be aware of the importance of setting the initial meetings and providing midpoint and final evaluations. Others have mentioned that preceptors must be knowledgeable and approachable (Lee et al., 2009; Lewis & McGowan, 2015). The best practices of the preceptors are identified by the NGNs as providing essential information needed in a timely manner, allowing time for the new nurses to figure things out independently, and providing time to think and debrief (Craig et al., 2012). In this study, the results differed from previous studies, this may be attributed to the preceptorship programs are well-established in the other countries such as South Korea and the United States. The preceptorship programs in Saudi Arabia are still new and need further development.

1.d. What is the Perception of Work Environment Satisfaction Among Saudi NGNs?

In the current study, the NGNs experienced a moderate level of work environment satisfaction. This finding is consistent with the previous studies where overall job satisfaction was positive and moderate (Faraz, 2015; Numminen et al., 2016; Van Bogaert, Adriaenssens, et al., 2014). There were moderate perceptions of work environment satisfaction in this sample, which could be the result of recently entering a desired career path. The moderate level of job satisfaction could be explained by the fact that the Saudi participants in this study had no more than 3 years of experience, compared to previous studies who had more than 3 years of experience.

The top three items that received the highest work environment satisfaction scores in the current study were (1) having the information needed to be able to perform the job, (2) being aware of professional opportunities to do the job, and (3) feeling comfortable for having knowledge and skills to manage the demands of the job. Contrary to the findings of the current study, previous studies reported that NGNs may face barriers in the first years of their employment because they do not know what the patient needs. The NGNs lack the clinical experience and competence in skill performance. The NGNs lack the confidence in providing safe and effective patient care, fulfilling the demands of their job, and responding appropriately to emergency situations. They also lack the organizational skills to prioritize their duties and manage the increasing workload demands and responsibilities. Other common workplace stressors that were reported in the studies were the lack of preparation to respond to demanding patients and acute patient situations (Cheng, Tsai, Chang, & Liou, 2014; Zori, Kohn, Gallo, & Friedman, 2013). Thus, ensuring adequate clinical and theoretical preparation are key to enhancing Saudi NGNs' satisfaction.

The three items reported as the least satisfying work environment situations by the Saudi NGNs in the current study were (1) not being able to participate in professional development programs that were of interest to them, (2) not being satisfied with the scheduled days and hours they worked, and (3) not having adequate an orientation for adequate length. These findings were supported by previous studies that showed that during the transition period, NGNs were more likely to be affected by organizational and environmental factors, which included unit orientation, interpersonal relationships, leadership style, autonomy, learning and professional development opportunities, and work schedules (Choi et al., 2013; Halfer & Graf, 2006; Scott, Engelke, & Swanson, 2008; Takase, 2010). Nurses who had opportunities for professional

development were empowered, more engaged, and experienced less stress and had better organizational outcomes in nursing practice environments (Kramer et al., 2012).

Other major determinants of job dissatisfaction were inflexible scheduling, long hours and irregular shifts, and interference between work and family demands (Koh, Lee, & Jeong, 2016; Mosadeghrad, 2013; Yu & Kang, 2016). Yu and Kang (2016) found that the turnover intention of NGNs who worked between 0 and 6 months was affected by work schedule (rotating shifts versus fixed schedules) and the duration of the orientation period. They also found that work schedule and working at the desired hospital were factors that affected turnover intention in the NGNs who worked between 7 and 12 months.

The Saudi NGNs in the research study were not satisfied with the length of the orientation programs (too short). Orientation is pivotal for NGNs because they do not have adequate knowledge and skills to provide patient care. Evidence supported our findings that preceptorship programs assisted the NGNs during orientation in their professional development and enhanced their satisfaction (Hu et al., 2015). Most health care facilities in Saudi Arabia set a predetermined time for nursing orientation that varies in length based on the unit and administrative decisions. The length of orientation programs was reported as a prominent struggle for the NGNs, which influences the NGN retention rate (Gerrish, 2000; Scott et al., 2008; Squires, 2002). Shorter orientation periods may not provide enough support or time for the NGNs to adjust in their new jobs. The evaluation of the orientation programs suggested that a minimum of 12 weeks is needed for the successful transition of the NGNs (Kramer, Brewer, & Maguire, 2013; Salt et al., 2008). Researchers mentioned that transition of NGNs can take between 18 months and 2 years of their employment after graduation (Hoffart, Waddell, Cnor & Young, 2011; McKenna & Newton, 2008; Schoessler & Waldo, 2006). The highest levels of

stress and the lowest job satisfaction and organizational commitment levels were reported by the NGNs between 6 and 9 months after employment (Rush et al., 2013). Therefore, the length of the orientation should be taken into account to help reduce the turnover intention of the NGNs. Some authors suggested that the length of the preceptorship programs should be provided for six months with an option to extend the duration to reach up to twelve months if necessary (Harrison-White & Simons, 2013). They argue that the preceptorship duration must be based on the individual needs and local arrangements.

1.e. What is the Perception of Saudi NGNs Regarding Role Conflict and Role Ambiguity? The Saudi NGNs reported a moderate level of role conflict and ambiguity in the current research study. Contrary to the previous studies, NGNs reported low role conflict and ambiguity (Faraz, 2015; Lalonde & McGillis Hall, 2017). The inconsistency might be attributed to the fact that the participants of the previous studies had more than one year of experience. Thus, they had a chance to become more aware of their roles and responsibilities. They knew how to manage their work and they knew what was expected of them.

The three items perceived by the Saudi NGNs as having the highest role conflict and ambiguity in the current study were (1) not having a clear understanding about responsibilities, (2) not knowing exactly what was expected of them, and (3) not knowing if they had divided their time properly. These findings are consistent with the previous studies where role ambiguity was experienced by novice nurses in their new roles. It is caused by lack of clarity with regard to the nurse's own roles or the employers and colleagues' lack of understanding regarding the new nurse's roles. It also results from a lack of clarity or existence of guides, policies, and directions. Role ambiguity can arise from uncertainty around the role expectations or unfamiliarity with the clinical environment and its culture. It may also arise from not explicitly addressing rules in

organizations (unclear or lack of information) and lack of communication (Gahlan & Singh, 2014; Moura, Orgambídez-Ramos, & Goncalves, 2014; Yurur & Sarikaya, 2012). Other factors that caused role ambiguity were uncertainty about duties, poor allocation of time, and lack of authority.

Conflicts occur from having inadequate time and capability to meet the demands or responsibilities, increasing job demands that interfere with the quality of work, or time that could be spent with family and friends. Lack of time because of the acuity of patient care and heavy assignments were the most frequent reasons for new graduates to leave the hospital (Sandau & Halm, 2011). Another study revealed that the NGNs lacked the organizational skills to prioritize their duties and manage the increasing workload demands and responsibilities (Cheng et al., 2014).

In the current research study, the top three items perceived by the participants as having the least role ambiguity were (1) having to do things that should be done differently, (2) working with two or more groups who operated quite differently, and (3) doing things that were apt to be accepted by one person and not accepted by others. However, the findings of this study are not aligned with the previous findings. Role conflict may arise as a result of the difference in expectations, goal competitions, conflict of interests, miscommunication, or dissatisfaction with interpersonal relations (Constantino & Merchant, 1996). Conflict among nurses and physicians or other health care professionals may arise from differences in point of view, goals, professional judgments, and levels of experience. Some sources of role conflict within and among nurses are lack of goals and expectations-related situations, competing responsibilities, inability to set boundaries, perception of unfair treatment, and generational differences (Brinkert, 2010).

Brinkert (2010) identified that lack of alignment between a patient's verbal and nonverbal communication can be a source of role ambiguity.

Previous studies identified that conflict can be caused by poor communication, uncertainties and lack of understanding. Some of the conflicts occurred from the perceptions of demands: having inadequate time and capability to meet the demands or responsibilities and increased job demands that interfered with the quality of work or time that could be spent with family and friends (Al-Hamdan et al. 2014). The role conflict and ambiguity reported by the NGNs can be a result of a lack of clear understanding of their roles and conflicting role expectations. Role conflict and ambiguity can increase confusion and frustration, which in turn affects nurses' turnover intention. High consideration should be given to clarifying roles and responsibilities and setting clear and planned goals and objectives. In addition, priorities should be placed on ensuring adequate resources and materials that facilitate the continuity of patient care.

1.f. What is the Perception of Turnover Intention of Saudi NGNs? The NGNs reported a high level of turnover intention ($\mu = 10.22$, $SD = 3.23$). The highest score received for turnover intention was 35.7%; meaning that participants strongly agreed that they often thought of leaving the organization. The lowest mean score received for turnover intention was 23.9% for the following item: if I could choose again, I would choose to work for the current organization, suggesting that participants may not choose to work for their current organization.

The findings of the current research study are consistent with the previous studies in which the authors found turnover intention level was high among nurses (Hong & Lee, 2016; Ishihara, Ishibashi, Takahashi, & Nakashima, 2014; Yu & Kang, 2016). In contrast to the findings of this research study, nurses reported a low or moderately low turnover intention level

(Faraz, 2015; Van Bogaert, Adriaenssens, et al., 2014) or a moderate level of turnover intention (Bontrager, Hart, & Mareno, 2016). Previous studies reported that the percentages of the nurses who had an intention to leave were between 6% and 10% in Belgium (Van Bogaert, Adriaenssens, et al., 2014; Van Bogaert, Timmermans, et al., 2014), 11.5% in Iran (Ishihara et al., 2014), 14% to 19% in the US (Blegen et al., 2015), 29.5% in Belgium (Van den Heede et al., 2013), and 35.2% in South Korea (Yu & Kang, 2016). Therefore, the NGNs reported high percentages of turnover intention when the percentages were compared with the previous studies.

Findings from Research Question Two

2.a. What are the Associations Among Job Stress, Role Conflict and Role Ambiguity, Preceptorship Experience, and Work Environment Satisfaction? The findings from this study indicate that Saudi NGNs with a high level of job stress were more likely to have a lower level of positive preceptorship experience ($r = -.193, p = .003$) and work environment satisfaction ($r = -.198, p = .002$). Whereas, the Saudi NGNs who reported a high level of job stress were more likely to have a high level of role conflict and ambiguity ($r = .334, p < .001$). In the current study, the Saudi NGNs who reported a high level of positive preceptorship experience were more likely to have a high level of work environment satisfaction ($r = .604, p < .001$) and a lower level of role conflict and ambiguity ($r = -.468, p < .001$).

In one study that was conducted in the United States, a significant positive correlation was found between preceptor role effectiveness and job satisfaction (Bontrager et al., 2016). In another study, role conflict was found to be related to a higher level of work satisfaction (Van Bogaert, Adriaenssens, et al., 2014), which contradicts the findings of our pilot and research studies. The highest correlation was found in the current research study between preceptorship

experience and work environment satisfaction, whereas the lowest correlation was found between job stress and preceptorship experience.

2.b. What are the Associations Among Job Stress, Role Conflict and Role Ambiguity, Preceptorship Experience, and Work Environment Satisfaction in Regard to Turnover Intention? The findings from the current research study indicate that Saudi NGNs who reported having a high level of job stress ($r = .194$; $p = .003$) and role conflict and ambiguity ($r = .389$; $p < .001$) were more likely to have a high level of turnover intention. However, the Saudi NGNs who reported a high level of positive preceptorship experience ($r = -.276$, $p < .001$) and work environment satisfaction ($r = -.320$, $p < .001$) were more likely to have a lower level of turnover intention.

The findings from this research study were supported by the findings from the previous studies. Job stress and turnover intention had a statistically significant positive correlation (Mosadeghrad, 2013; Oh, Uhm, & Yoon, 2016; Yim, Seo, Cho, & Kim, 2017; Zhang, Wu, Fang, Zhang, & Wong, 2017), meaning that the greater the job stress, the more likely a nurse has the intention to leave. Only one of the studies conducted in South Korea found a significant negative correlation between job stress level and turnover intention (Koh, Lee, & Jeong, 2016).

Previous studies reported that NGNs who participated in the preceptorship program or who perceived positive preceptorship experience had low turnover intention (Bontrager et al., 2016; Friedman et al., 2013; Hu et al., 2015; Lalonde & McGillis Hall, 2017). Furthermore, the overall perception of nurses' work environments was significantly correlated with turnover intention in many of the previous studies. Nurses with a lower level of nursing work environment satisfaction had a high turnover intention (Choi, Cheung, & Pang, 2013; Koh et al., 2016; Numminen et al., 2016; Van den Heede et al., 2013; Yu & Kang, 2016).

Previous studies found that role conflict and ambiguity was positively correlated with turnover intention. NGNs with high role conflict and ambiguity had high turnover intention (Faraz, 2015; Han, Han, An, & Lim, 2015; Unruh & Zhang, 2013). One of the studies included in the literature review showed that role ambiguity had no significant impact on turnover intention (Van Bogaert, Adriaenssens, et al., 2014). The variations in the findings could be attributed to the fact that different measurement tools were used in different studies, which led to a different conclusion. To sum up, despite the different cultures, the correlations between study variables and turnover intention were aligned with the international body of evidence. All study variables appear to be correlated in the expected direction.

Findings from the Research Question Three

3.a. What are the Associations Among Nursing Characteristics, Job Stress, Role Conflict and Role Ambiguity, Preceptorship Experience, and Work Environment Satisfaction? In this research study, working hours, assistance with housework, and previous experience had a significant correlation with the study variables. There was a statistically significant difference in the means between working hours and work environment satisfaction ($t[228] = 2.171, p = .031$), meaning that NGNs who were working less than 9 hours per shift had statistically significant higher work environment satisfaction compared to the NGNs who were working 9 hours or more per shift. This finding is not surprising as working more hours could cause fatigue and stress among nurses.

Additionally, there was a statistically significant difference in the means between assistance with housework and role conflict and ambiguity ($t[227] = -2.259, p = .025$). This study found that NGNs who had assistance with housework had statistically significant lower role conflict and ambiguity compared to the NGNs who did not have assistance with housework. The

Saudi NGNs have family responsibilities in addition to their work responsibilities. Balancing between family and work with the assistance with housework could reduce role conflict and ambiguity at work as the Saudi NGNs.

There was also a statistically significant difference in the means on role conflict and ambiguity between the NGNs who had previous experience and those who did not have previous experience ($t[229] = -2.423, p = .016$). NGNs who had previous work experience had a statistically significant lower level of role conflict and ambiguity compared to the NGNs who did not have previous experience. This finding attributed to the fact that NGNs with previous experience are aware of their roles and responsibilities and how to accomplish their work. Unfortunately, none of the studies reported correlations between the nursing characteristics and the study variables among the newly graduated nurses, which hindered our ability to compare the results.

In the current study, the following associations were approximately significance area of practice and job stress ($t[253] = -1.953, p = .052$), number of nurses who had children and preceptorship experience ($F[2,70] = 2.571, p = .084$), and assistance with housework and preceptorship experience ($t[226.89] = 1.838, p = .067$). In a previous study, nurses who were working in psychiatry, ICU, pediatrics, the operation theatre, cardiology, surgery, internal medicine, and accident and casualty departments were more likely to leave their current positions than were nurses in other wards (Mosadeghrad, 2013). Mosadeghrad argued that nurses who work in these departments experienced high workloads, time pressure, insufficient breaks, irregular shifts, and a lack of support from management and co-workers.

The findings from the current research study revealed that nurses who have children and who have assistance with housework were more likely to have a positive preceptorship

experience. These results might be attributed to the fact that preceptors become aware of work and family responsibilities and support the Saudi NGNs by balancing work-life obligations. Preceptors might help the Saudi NGNs in their work and provide a flexible time that allows the Saudi NGNs to manage family responsibilities such as caring for a child or elderly individual. However, these relationships were not examined previously. In other words, assistance contributes to less stress with family obligations and better experience.

3.b. What are the Associations Among Nurse Characteristics, Job Stress, Role Conflict and Role Ambiguity, Preceptorship Experience, and Work Environment Satisfaction in Regard to Turnover Intention? In the current research study, the nursing characteristics had no significant associations with turnover intention. Similar to our study, age, gender, presence of children at home, marital status, type of hospital, and previous experience in health care were not significantly related to nurses' turnover intentions (Unruh & Zhang, 2013).

However, the following associations were approximately significant with turnover intention: hospital location ($t[236] = -1.845, p = .066$), educational level ($F[2,226] = 2.457, p = .088$), and parental status ($t[232] = 1.838, p = .067$). The current study reveals that hospital location has approximate significance correlation with turnover intention of the Saudi NGNs. Jeddah and Makkah are considered to be major cities in Saudi Arabia. Nurses might come from different places to work in these two locations because the work environments are better than in the other minor cities. The Saudi NGNs might realize that these locations are far from their family and children and may think about leaving their positions. Cho et al. (2012), Peterson et al. (2011), and Ulrich et al. (2010) recognized clinical settings, type of organization, and work conditions as substantial predictors of intention to leave in graduate nurses.

The educational level also had an approximately significant correlation with turnover intention ($F[2,226] = 2.457, p = .088$). Previous studies revealed that nurses with higher education had higher turnover intention (Choi et al., 2013; Unruh & Zhang, 2013; Van Bogaert, Adriaenssens, et al., 2014; Yim et al., 2017). Lambert et al. (2012) reported in their study that highly educated nurses have more career options, so they may be more likely to leave their positions. Nevertheless, other studies showed that level of education was not significantly associated with turnover intention of NGNs (Lee, Lim, Jung, & Shin, 2012; Unruh & Zhang, 2013).

In the current research study, a near significant association was found between turnover intention and parental status ($t[232] = 1.838, p = .067$). The result of one of the studies showed that having a flexible time off to manage family responsibilities such as caring for a child or elderly individual influenced nurses' intentions to remain employed (Tourangeau et al., 2010). Almalki, FitzGerald, and Clark (2012) found that nurses with children were less likely to leave the organization. Their explanation was that nurses with children might have financial commitments to fund their children through university. Having financial obligations toward children increased nurses' intentions to remain employed (Almalki et al., 2012).

In the previous studies, the length of work experience as a nurse in the previous and current positions and occupational level (role of the nurses) were found to have statistically significant differences in the level of turnover intention (Choi et al., 2013; Yim et al., 2017; Yu & Kang, 2016). Area of practice was significantly associated with turnover intention (Choi et al., 2013; Friedman et al., 2013; Yu & Kang, 2016). Nurses who worked more hours had less intention to leave (Unruh & Zhang, 2013). Significant correlations were found between turnover intention and length of the orientation (Yu & Kang, 2016). The differences in the findings

between the studies could be attributed to use of a small sample size in many of the previous studies and using different criteria to recruit the participants in the studies.

Findings from the Research Question Four

4. Do Nursing Characteristics, Job Stress, Role Conflict and Role Ambiguity, Preceptorship Experience, and Work Environment Satisfaction Predict Turnover Intention

When Controlling for Significant Nursing Characteristics? In the current research study, work environment satisfaction ($\beta = -.190$, $p = .012$) and role conflict and ambiguity ($\beta = .275$, $p < .001$) had direct significant influence on turnover intention. This means that the higher the role conflict and ambiguity and lower work environment satisfaction, the higher the turnover intention. Among the independent variables, the concept of role conflict and ambiguity had the greatest influence on turnover intention.

Previous studies found that work environment satisfaction was a predictor of turnover intention among NGNs; the higher work environment satisfaction, the lower the turnover intention (Bontrager et al., 2016; Koh et al., 2016; Van Bogaert, Timmermans, et al., 2014). Preceptor role effectiveness did not predict intention to stay (Bontrager et al., 2016). The result is similar to that obtained in this pilot study and this research study. Similar to our findings in the pilot study, role conflict and ambiguity had no direct effect on turnover intention (Han et al., 2015; Van Bogaert, Adriaenssens, et al., 2014).

Contrary to our findings, nursing characteristics such as age, marital status, working status, and time in job were the significant predictive factors of turnover intention (Faraz, 2015). Role ambiguity was the most predictive variable of turnover intention (Faraz, 2015). Job stress was found to have a significant direct effect on turnover intention (Hong & Lee, 2016; Koh et al., 2016; Oh et al., 2016). The variations in the findings between the studies may be attributed to the

fact that different measurement tools were used in the studies. Furthermore, the differences in the findings could be attributed to using a small sample size in many of the previous studies and using different criteria to recruit the participants in the studies.

Findings from the Evaluation of the Mediation Effects

In the current research study, role conflict and ambiguity in addition to work environment satisfaction were the significant predictors of the Saudi NGNs' turnover intention. Perceived role conflict and ambiguity in addition to work environment satisfaction worked as the mediators in this study. Perceived job stress and preceptorship experience were not the direct significant predictors for Saudi NGNs' turnover intention, so they have no direct effect on turnover intention. However, the findings from this study showed that job stress and preceptorship experience influenced role conflict and ambiguity and work environment satisfaction, which in turn influenced the NGNs' turnover intention. It must be noted that work environment satisfaction partially mediates the relationship between job stress and turnover intention.

The mediation effects among the NGNs were not studied extensively in previous studies between the study variables included in our research studies. However, the mediation effects were examined with other variables that could influence turnover intention. A previous study that was implemented in Saudi Arabia reported a similar result in which job satisfaction worked as a mediator between relational coordination and turnover intention (Falatah & Conway, 2018). Another study revealed that the relationship between job stress and turnover intention was partially mediated by psychological capital (Yim et al., 2017). Role conflict and ambiguity was mediated by organizational commitment and burnout (Han et al., 2015). An indirect effect was found between role conflict and ambiguity on turnover intention by the mediation effects of organizational commitment and burnout (Han et al., 2015). Several studies have shown that a

healthy nursing practice environment is associated with nursing job satisfaction and retention (Choi & Boyle 2014; Li et al. 2012; Patrician et al. 2010). Yim et al. (2017) found in their final analysis that the role of physical capital partially mediates between occupational stress and turnover intention, whereas Hong and Lee (2016) found emotional intelligence as a mediator between job stress and turnover intention. In summary, the findings from the current research study revealed that an effort must be made to enhance work environment satisfaction levels and reduce role conflict and ambiguity levels, as they have the potential to reduce turnover intention.

Implications

Implications for Clinical Practice

This research study has identified important factors to which nurse leaders should pay attention to prevent turnover of Saudi NGNs. According to the current research study, the aspects identified as stressful are not enough staffing to adequately cover the unit. Low perceptions of the adequacy of staffing might affect the NGNs' time to get the work done, which in turn affect the continuity and quality care (Numminen et al., 2016). Positive job experience and better care quality were perceived by nurses who work in an environment with optimum staffing levels (Aiken et al., 2008). Nurse managers must manage the staffing issue by balancing the nurse-to-patient ratio to allow enough time for patient and nurses to discuss patient care problems, provide safe and satisfying environment for patients. Administrative staff must oversee the daily management, cultivate a culture of assisting others with work, and provide supervisor support. The preceptors (experienced nurses) or nurse managers could be assigned to provide help, reduce the paperwork and burden on NGNs.

Work environment satisfaction must become the critical factor of consideration to influence the Saudi NGNs. Developing a good personal relationship and teamwork, while

creating a supportive work environment at the workplace help to improve work environment satisfaction. Nurse managers must consult front-line nurses and consider their views when implementing quality measures. They must demonstrate their value to staff by enhancing joint decision-making, shared values, support, collaboration and maintaining open communication between healthcare workers including supervisors, subordinates, peers. Strong work relationships with peer and supervisors encourage nurses to set and achieve goals and enhance the quality of patient care (Van Bogaert et al., 2010).

Nurse managers should clearly define the NGNs roles, professional responsibilities, and the demand associated with their roles. Nurse managers must also implement measures that increase role clarity for the NGNs by addressing the expectations when they perform duties. Nurse managers must ensure the availability of adequate resources and materials and access to information to facilitate patient care and perform job (Choi et al., 2013). Employers may benefit from educating their staff, particularly about the scope of practice, existence guidance, policies and directions, organizational rules and procedures of the NGNs to increase awareness and familiarity with the practice environment and its culture at an earlier stage. In addition, a preceptor network could be established where preceptors are trained about how to be successful mentors. Being preceptor offers opportunity for experience growth and professional development

Implication for Education

The NGNs' socialization should begin before graduation. To better prepare the NGNs, providing resources and training based on understanding the deficits that the NGNs have upon entering the workforce must be considered by the educational institutions. Greater emphasis should be placed on teaching the NGNs the role development and professional skills, understanding the scope of practice, and working independently.

Nurse educators should regularly review and modify the practical training programs (such as orientation and preceptorship programs) that ensure effective development of nursing knowledge, skills and competencies. The NGNs must also be trained in healthcare organization and must be supervised and continually evaluated to ensure that they provide safe healthcare practice to patients that would subsequently increase the supply of qualified Saudi cadres in the field of nursing. An initial performance evaluation in addition to continuous follow-up evaluation should be implemented during the first three years of practice.

Nurse educators must identify the learning needs of the NGNs during the training period. Nurse educators and managers should meet regularly with the NGNs individually and then with their preceptors at least once per month during the training period to review the progress in the performance of the NGNs and identify strengths and weaknesses that need improvement. Accordingly, nurse educators must plan for setting educational objectives or providing corrective action.

Performance evaluation should include training for the NGNs to communicate with patients, families, and healthcare providers, use critical thinking skills to solve problems and make decisions, adhere to policies, and provide safe patient care. Nurse educators should discuss any problems or concerns occurred to the NGNs during the training period. They should assist the NGNs to develop realistic goals and objectives to facilitate their professional growth. Competency must be evaluated at the time NGNs are hired and at a regular basis afterwards to ensure that they have the knowledge, skills, and competencies needed to perform their duties.

Nurse managers, nursing supervisors including preceptors, and nurse educators must develop a training plan and set clear training objectives that ensure all new staff nurses including NGNs are competent in performing their assigned roles and responsibilities in their designated

area of clinical practice. They must also develop an individualized training plan according to the need of the new staff nurses.

A preceptor preparation program should be developed by the nurse educators. The preceptor preparation program should include a comprehensive explanation of roles and responsibilities of both the preceptors and their preceptees, understanding of the process of coaching NGNs, and enhancing the awareness of diversity such as race, gender, and age, personality, and learning style (Sandau et al., 2011). Selecting and matching the preceptor with the NGNs are also important and can result in increased preceptorship experience and work environment satisfaction.

In Saudi Arabia, internship programs are offered by the educational institutions for all NISs before their graduation. Hence, the internship programs have to be evaluated regularly and redesigned based on the needs of the NISs. Collaboration between healthcare organizations and educational settings will help NGNs to adjust more readily to the clinical environment. Partnership between hiring organization and the universities could be established to create innovative placement programs to allow students to spend the majority of their placements at the intended healthcare institution. Managers could offer interviews and hire promising students several months before graduation.

Alumni associations and social networks should be established for the students who graduate from the nursing schools and it could also include former students. These associations and networks could enhance the network by helping the graduates maintain connected with their fellow graduates and their educational institution. The alumni associations often support the new graduates and facilitate building friendships and business relationships. The alumni associations

and social networks could help the researchers to reach out the graduate students and investigate their issues after graduation.

Implications for Policy

This research study provides fundamental information that enables policy makers in the healthcare organization to effectively evaluate the recruitment and retention strategies to manage nursing workforce. The Saudi Ministry of Health should consider tracking nursing employments and turnover to manage the nursing staff. Statistical analysis should be performed yearly about the nurses who entered and leave the nursing profession. Conducting exit surveys or interviews is an important strategy to gain valuable insight about the reasons for leaving either the current position or the nursing profession. Exit interview could also be implemented annually to investigate the factors that the available nursing staff consider to stay in or to leave their positions.

It is important for the MOH-research department to fund research efforts to understand the issues of the Saudi NGNs that might impact nursing workforce and influence their turnover. The current research study revealed that working fewer hours was associated with lower role conflict and ambiguity. Therefore, healthcare organizations can investigate adopting eight hours shifts instead of 12-hour shifts or offering flexibility for NGNs to choose between working 8 or 12 hours per shift. It was suggested that nurse directors and other policy makers calibrate the right balance of amount of work assigned by the healthcare organizations.

Policy makers such as MOH must re-examine aspects of management and nursing practice to improve work conditions. To create a healthy nurse practice environment that is productive to satisfaction, professionalism, retention, and safe quality patient care, principles of Magnet Hospitals should be used to guide nursing organization transformation by policy makers.

Magnet has been used in the US and internationally, and its principles focus on nurse and patient outcomes within nursing team. The components of the Magnet Hospital include structural empowerment, positive interdisciplinary relationships, transformational leadership, exemplary professional practice, innovations and improvement, and empirical outcomes (American Nurses Credentialing Center, 2013).

Limitations

There are several limitations that must be considered for this research study. The data were collected from the participants at the time where the Central Board for Accreditation of Healthcare Institutions (CBAHI) accreditation review was in the process. Therefore, the participants' responses could be influenced by the increased workload and the stress of CBAHI accreditation or other events that occur during the data collection time. Also, the data was collected during a major holiday. People who were on the vacation might not receive the invitation to participate in the study. All these factors could contribute to why few people completed the survey. Another limitation of this study is the data collection were not specific; meaning that all Saudi nurses were invited to participate in the study. The response rate was high, but the student PI excluded around 67% of the cases because they were not meeting the eligibility criteria. Additionally, the purposive explanatory correlational design was used in this study which allows for predicting the relationships between the study variables, but it cannot claim for causality between the variables. Using a longitudinal study that accounts for the chronological context may be considered for future studies to understand the interactions and determine the causal relationships among the concepts.

More research in this area is required prior to generalizing the study findings. Further studies in other healthcare facilities should be carried out with differing work atmospheres.

These limitations must be taken into consideration and the findings of the study should be interpreted with caution since the settings do not represent all hospital employed in other hospitals and cities in Saudi Arabia and was limited to the participants who met the eligibility criteria.

Recommendations for Further Research

First, turnover intention was measured in this research study rather than the actual turnover intention. It was found in the current study that the NGNs' turnover intention is a complex issue that requires multiple prevention strategies and can be influenced by other predictors. Evidence showed that turnover intention is the strongest predictor of the actual turnover, the actual turnover should be studied in future research. It is also recommended to verify whether nurses consider leaving the organization or the nursing profession. Further, the association between turnover intention and four predictors were investigated in this research study. Future studies need to examine the effects of the other predictors that were not measured in the current study, which can directly and indirectly influence NGNs' turnover intention. Using in-depth interviews or focus groups can be used in future study to understand the other reasons that contribute to the turnover intention among Saudi NGNs. For the purpose of this study, the researcher did not investigate the subscales. However, it is pertinent and timely to further investigate the subscales in future studies.

In the future study, researcher should look at cultural differences and how the differences might influence people's feeling to replaying or responding to the survey questions. In the future, the researcher must be more specific to have the right group that meet the eligibility criteria. Targeting the right people could be done by getting a more specific list from the Human Resources and distribute it through emails. Additionally, the participants of this study indicated

that the survey was too long. Therefore, the researcher needs to be more specific about how much time completing the survey would it take and limit the number of instruments or the items used in the survey. Regardless of the reported length concern by the Saudi NGNs, the researcher still got feedback.

The researcher noticed that the pilot populations had different perceptions than the NGNs and the differences are distinct enough that make it worthwhile for the researcher to go back to the same kind of population. Future study will also investigate if there are different perceptions between Saudi born and non-Saudi nurses to get better understanding on the actual turnover. The researcher should also evaluate what have been successful elsewhere and determine what be used and what can be translated into the Arab culture. In addition, turnover intention was measured at one point in time where it might change over time. Thus, conducting a longitudinal study becomes important to greater capture the accuracy of turnover intention. Research on the NGNs' turnover intention in Saudi Arabia is still in its infancy and necessitates further studies.

Conclusion

The chronic shortage of nurses in Saudi Arabia is a domestic and international issue. The high turnover intention rate among NGNs confirms the need for greater nursing workforce management. The high prevalence of turnover intention among NGNs is disturbing and measures need to be taken to address this aspect in the healthcare system. This study was conducted with the aim of examining the factors associated with turnover intention among Saudi NGNs. It represented the first known study to understand the role play by job stress, preceptorship experience, work environment satisfaction, and role conflict and ambiguity in influencing turnover intention amongst nurses in a Saudi Arabian context. Understanding these factors is critically important for baseline data for effective management of the nursing workforce. The

current study revealed that role conflict and ambiguity were a strong predictor of turnover intention. However, work environment satisfaction was found as the common predictor of turnover intention in the research study. Resolving role conflict and ambiguity while enhancing the work environment satisfaction not only can retain NGNs but also may have long-term influence on any new or transferring nurses in the healthcare workforce. Western studies shared common conclusions as this study that was implemented in the Saudi Arabian contexts. Most NGNs enter the nursing profession with high expectations and anticipations, but the experience reality shock when they start working as a staff nurse which impact their decision about their career. The current study provides empirical support for the declaration that work environment satisfaction and role conflict and ambiguity are associated with turnover intention.

This research study provides fundamental knowledge for the development of a management plan for the nursing workforce, which is essential to prevent the nurse turnover.

The findings of the current study support the majority of the existing research with the presence of minor differences between the continents. This may be attributed to the study population and the instruments in the current study. The difference might not be attributed to the culture, but workplace environment, training, or organizational factors. Therefore, results from other continents should be evaluated for relevance at use in Saudi Arabia. In the future, research should be implemented to investigate the factors that could lead to differences noticed between the continents. Given the state of knowledge, an exploratory study was indicated. The results confirmed and validate insights from previous studies that were conducted at multiple continents.

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APPENDIX A: The Screening Tool for the Eligibility Criteria

1. Did you graduate within less than 5 years from a nursing program?
 - Yes
 - No
2. Do you have less than three years of experience in the current position?
 - Yes
 - No
3. Where are you working?
 - In a government hospital
 - In a non-governmental hospital
4. Are you a Saudi citizen?
 - Yes
 - No

APPENDIX B: IRB Approvals

1. The IRB Approval of the MOH's Directorate of Health Affairs-Jeddah, Medical Research and Studies Department

الخطبة للشؤون الصحية في جدة
1439-1742042
20-05-2018 05-09-1439



وزارة الصحة
Ministry of Health

المملكة العربية السعودية
Kingdom of Saudi Arabia

مديرية الشؤون الصحية بمحافظة جدة
Directorate of Health Affairs - Jeddah
(٢٠٢/٢٧٥)

الموضوع: الموافقة على إجراء بحث

الإدارة: إدارة البحوث والدراسات

سعادة مدير مستشفى الملك عبدالعزيز/ مستشفى شرق جدة العام / مستشفى الملك فهد/
مستشفى الولادة والأطفال بالمساعدية / مجمع الملك عبدالله الطبي
/ مستشفى النخع/ مستشفى العزيزية للولادة والأطفال بجدة
المحترمين،
السلام عليكم ورحمة الله وبركاته...
نفيدكم بأن الباحثين اسمهم أدناه سوف يقومون بإجراء البحث كالتالي:

شهرية يوسف أندرييري	أسماء الباحثين:
00911	رقم البحث:
A00577	رقم الموافقة:
العوامل المرتبطة بنية الممرضين السعوديين/ الممرضات السعوديات حديثي التخرج على ترك العمل	عنوان البحث - عربي:
Factors Associated with Turnover Intention among Saudi Newly Graduated Nurses	عنوان البحث - انجليزي:
سنة من تاريخه	مدة الموافقة:

وبعد الإطلاع ودراسة منهجية البحث من قبل اللجنة العلمية ولجنة أخلاقيات البحث العلمي المسجلة لدى اللجنة الوطنية للأخلاقيات
الحيوية والطبية برقم (H-02-J-002) وجد أنه لا مانع من إجراء البحث.
أمل تسهيل مهمة الباحثين في إجراء البحث مع مراعاة الآتي:
١. اتباع قوانين اللجنة الوطنية للأخلاقيات الحيوية والطبية.
٢. في حال أي تغيير في خطة البحث يجب الحصول على موافقة إدارة الأبحاث.
٣. عدم تأثر الخدمة في المرافق المعنية.
٤. المحافظة على حقوق الأشخاص الخاضعين للبحث وخصوصياتهم.
٥. استخدام المعلومات لأغراض البحث العلمي فقط.
٦. تقديم تقرير عن سير الدراسة لإدارة البحوث كل ستة أشهر.

شاكرين تعاونكم.

وتفضلوا بقبول أطيب تحياتي،،

مساعدة مدير الشؤون الصحية
للتخطيط والتطوير

د/ نهي أحمد عائش دشاش

رئيس اللجنة المحلية لأخلاقيات البحوث
مدير إدارة البحوث والدراسات

د/ عبد الله بن سعد الزهراني

E-mail: research-jeddah@moh.gov.sa

Tel# (012 - 6347334)

الرقم،	/	/	/	التاريخ،	/	/	١٤	الشهور،
هاتف،	٠٢-٦٦٦٠٠٠٦ / ٠٢-٦٦٦١٣٧٧	فاكس،	٠٢-٦٦٦٢٩٦١	ص.ب،	١٢٤٩٢	جدة،	٢١١٧٦	

Tel.: 02-6831377. 02-6970006 Fax: 02-6622961 P.O. Box: 12493 Jeddah 21176

موقع إلكتروني: www.moh.gov.sa

2. The IRB Approval of the MOH's Directorate of Health Affairs- Makkah, Medical Research and Studies Department



المملكة العربية السعودية
وزارة الصحة
المديرية العامة للشؤون الصحية
بصحة منطقة مكة المكرمة
إدارة التخطيط والبحوث
رقم:
تاريخ:/...../١٤٣٩هـ
مشروع:

المحترمين سعادة مدير مستشفى النور التخصصي / حراء العام / الولادة والأطفال / اجياد الطوارئ

المحترمين ص. منسق البحوث مستشفى النور التخصصي / حراء العام / الولادة والأطفال / اجياد الطوارئ
السلام عليكم ورحمة الله وبركاته

إشارة إلى طلب الباحثة / شهيرة يوسف اندرقيري ، والتي ترغب في القيام بدراسة بحثية لديكم تحت عنوان:

(عوامل الترابط بينة للمرضين / الممرضات حديثي التخرج على ترك العمل)
Factors Associated with Turnover Intention among Saudi Newly Graduated Nurses

والذي من المتوقع أن يتم تنفيذه خلال عامنا الحالي الى نهاية ١٤٣٩ هـ ، لذا نأمل من سعادتكم تسهيل مهمة الباحثة في إجراء الدراسة على أن يتم الالتزام بما يلي:

١. الحفاظ على سلامة المرضى.
٢. الحفاظ على السرية العلاجية وسرية المرضى .
٣. ألا يكون هناك تأثير على خدمة المراجعين خلال قيامكم بمهام البحث.
٤. في حال التمديد أو تغيير خطة البحث ، يطلب من الباحث أن يتقدم بخطاب خطي لمنسق البحوث بالجهة التي يتم تنفيذ البحث بها للتعامل نظاما مع الطلب .
٥. على الباحث قبل البدء بتنفيذ بحثه التوجه لمنسق البحوث بالجهة المراد القيام بتنفيذ البحث بها.
٦. على الباحث أن يعلم بأن وزارة الصحة تضمن حقوقها في نتائج البحث من خلال إتفاقيات المشاركة في البيانات .

على الباحث عدم نشر الدراسة دون الحصول على موافقة لجنة أخلاقيات البحوث وإكمال المسوغات والمتطلبات المعتمدة من قبل الإدارة العامة للبحوث والدراسات بوزارة الصحة ، وحيث صدر للباحث قرار اللجنة المحلية لأخلاقيات البحوث بصحة مكة المكرمة رقم : (H-02-K076-1805-030)

وتقبلوا فائق تحياتي،،،،

مدير إدارة التخطيط والبحوث
بصحة منطقة مكة المكرمة
الدكتور /
نادر بن حمزة مطير

3. The IRB Approval of King Abdulaziz University Hospital-Unit of Biomedical Ethics (Part A)

KINGDOM OF SAUDI ARABIA

Ministry of Higher Education

KING ABDULAZIZ UNIVERSITY

Faculty of Medicine



المملكة العربية السعودية
وزارة التعليم العالي
جامعة الملك عبد العزيز
كلية الطب

Ref.FM:

Date : / /

Encl. :

الرقم :

التاريخ : ١٤ / / هـ

الرفقات :

UNIT OF
BIOMEDICAL ETHICS
Research Committee

Initial Approval

TO: Principal Investigator: Shaheerah Yousef Andargeery (Nursing)

From: Professor. Hasan Alzahrani

Supervisor: Alkeneel Talsma

Date: Sunday, July 01, 2018

CC: Vice-Dean, University / Hospital Director & Academic Affairs & File & Mentoring Committee

RE: "Factors associated with turnover intention among Saudi newly Graduated nurses. (Reference No 398-18)
Cross sectional study

The above titled research/study proposal has been examined with the following enclosures:

- The Study Protocol.

The REC recommended granting permission of approval to conduct the project along the following terms:

1. The PI is responsible to get Academic Affairs, hospital and departmental approval.
2. Provide to committee "Continuing Review Progress Report" every 3 months.
3. Any amendments to the approved protocol or any element of the submitted documents should NOT be undertaken without prior re-submission to, and approval of the REC for prior approval.
4. Monitoring: the project may be subject to an audit or any other form of monitoring by the REC.
5. The PI is responsible for the storage and retention of original data of the study for a minimum period of five years.
6. The PI is expected to submit a final report at the end of the study.
7. The PI must provide to REC a conclusion abstract and the manuscript before publication.
8. To follow all regulations issued by the National Committee of Bio & Med ethics - King Abdul Aziz City for Science and Technology.

The Organization & operating procedures of the KAU, Faculty of Medicine - Research Ethics Committee (REC) are based on the Good Clinical Practice (GCP) Guidelines.
Please note that this approval is valid for one year commencing from the date of this letter.

Professor Hasan Alzahrani

Chairman of the Research Ethics Committee

(HA-02-J-008) No of Registration At National Committee of Bio. & Med. Ethics.

Yasser AlAhmadi (Reference No 398-18)

4. The IRB Approval of King Abdulaziz University Hospital-Unit of Biomedical Ethics (Part B)



KING ABDULAZIZ
UNIVERSITY HOSPITAL
Jeddah, K.S.A.



ACCREDITATION CANADA
AGREMENT CANADA
(KAUH Accredited: 2009-2012)

MISSION

To serve the community by providing patient-care services at all levels, the environment for education and training of health professionals, and promoting research

VISION

KAUH will be recognized as one of the best Evidence-Based Health Center in the Middle East

VALUES

- Sincerity and Devotion
- Sense of Responsibility
- Respect of Patients' and Staff Rights
- Creativity and Progress

☎ POB 80215, Jeddah
21589
☎ +966 2 6401000
☎ +966 2 6403975
🌐 www.kau.edu.sa

Mem o

Nursing Administration

To : All Head Nurses
From : **Laila Al Tabsh** *Laila*
Director of Nursing
Date : 8th July 2018 / 24 Shawal 1439
Subject : **Factors associated with turnover intention among Saudi newly graduated nurses**

Researcher: Mrs. Shaheerah Yousef Andargeery

Please be informed that the above named researchers will be conducting a data collection for the study as titled.

The researcher/s will be in contact with the interested candidates - nurses to distribute the questionnaire.

Nursing department encourage the interested nurses to participate in the research however there is no pressure the involvements in this research will be in voluntary basis. The interested nurses could request for adequate time and details regarding the research prior the data collection. Nurses to ensure the period of data collection would not compromise patient safety.

Attached herewith is the KAU Biomedical Ethics Committee approval letter as perusal.

Thank you.

cc: Manager, Clinical Practice & Research
Area Manager/s
Principal Investigator
File

*Nursing Department believes in Quality Initiative and Teamwork towards
Delivering Quality Health Care for the Betterment of the Patient.*

5. The IRB Approval of the University of Wisconsin-Milwaukee



Department of University Safety & Assurances

Melody Harries
IRB Administrator
Institutional Review Board
Engelmann 270
P. O. Box 413
Milwaukee, WI 53201-0413
(414) 229-3182 phone
(414) 229-6729 fax

<http://www.irb.uwm.edu>
harries@uwm.edu

New Study - Notice of IRB Exempt Status

Date: July 19, 2018

To: AkkeNeel Talsma, PhD

Dept: Nursing

CC: Shaherah Andargeery

IRB#: 19.014

Title: Factors Associated with Turnover Intention Among Saudi Newly Graduated Nurses

After review of your research protocol by the University of Wisconsin – Milwaukee Institutional Review Board, your protocol has been granted Exempt Status under **Category 2** as governed by 45 CFR 46.101(b). Your protocol has also been granted approval to waive documentation of informed consent as governed by 45 CFR 46.117 (c).

This protocol has been approved as exempt for three years and IRB approval will expire on **July 18, 2021**. If you plan to continue any research related activities (e.g., enrollment of subjects, study interventions, data analysis, etc.) past the date of IRB expiration, please respond to the IRB's status request that will be sent by email approximately two weeks before the expiration date. If the study is closed or completed before the IRB expiration date, you may notify the IRB by sending an email to irbinfo@uwm.edu with the study number and the status, so we can keep our study records accurate.

Any proposed changes to the protocol must be reviewed by the IRB before implementation, unless the change is specifically necessary to eliminate apparent immediate hazards to the subjects. The principal investigator is responsible for adhering to the policies and guidelines set forth by the UWM IRB, maintaining proper documentation of study records and promptly reporting to the IRB any adverse events which require reporting. The principal investigator is also responsible for ensuring that all study staff receive appropriate training in the ethical guidelines of conducting human subjects research.

As Principal Investigator, it is also your responsibility to adhere to UWM and UW System Policies, and any applicable state and federal laws governing activities which are independent of IRB review/approval (e.g., [FERPA](#), [Radiation Safety](#), [UWM Data Security](#), [UW System policy on Prizes, Awards and Gifts](#), state gambling laws, etc.). When conducting research at institutions outside of UWM, be sure to obtain permission and/or approval as required by their policies.

Contact the IRB office if you have any further questions. Thank you for your cooperation, and best wishes for a successful project.

Respectfully,

A handwritten signature in cursive script that reads "Melody Harries".

Melody Harries
IRB Administrator

APPENDIX C: The Consent Form (English Version)

Study Description: To examine the factors that are associated with turnover intention among Saudi newly graduate nurses in several tertiary healthcare organizations located in Jeddah and Makkah, Saudi Arabia. Turnover intention is an indicator of the actual employee turnover, which in turn increase the cycle of nursing shortage (Takase, 2010). High turnover rate influences the quality and safety of patient care by having inadequate staffing and increasing the workload demands on the remaining nurses (Bae, Mark, & Fried, 2010). Additionally, the high turnover rate among NGNs caused financial loss to the healthcare organizations. Turnover of the NGNs caused financial loss related to advertising for new positions, higher recruitment, supervising, replacing nurses, orientation process and training, and vacancy (Lee et al., 2009; The Lewin Group, Inc., 2009).

In other countries such as the US and China, evidence showed that managing job stress, enhancing preceptor role, and work environment satisfaction have been particularly significant for preventing/ reducing NGNs from leaving their current positions. Similar results are not found in Saudi Arabia. Therefore, it would be useful to study the perceptions of NGNs to gain a greater insight into global perspectives on the factors that associated with NGNs' turnover intention. There is a pressing need to develop a study that would explore the factors that have received less attention among the NGNs. Furthermore, it is necessary to clarify how nurse characteristics, job stress, role conflict and role ambiguity, preceptor role effectiveness, and work environment satisfaction affect NGNs during the transition period to prevent their actual turnover. Studying these factors could allow for generating common strategies for recruiting and retaining new nurses.

Duration of Participation: The length of the study is approximately three months; however, you will only be asked to fill the questionnaires one time.

Study Procedures: You will be asked to complete six questionnaires. It will take approximately 15 to 25 minutes to complete the questionnaires. The first questionnaire consists of general personal information. The second questionnaire has a list of situations that commonly occur in a practice setting. The rating response indicates how stressful a situation is for you. The third questionnaire contains 15 questions. It has a list of situations and you will be asked to rate how each situation applies or exists for you personally. The fourth questionnaire describes preceptor role characteristics. There are 23 questions that are designed to determine the effectiveness of the preceptorship you experienced from the first employer by whom you were hired. The statements are to be applied to the first preceptor you were assigned during this preceptorship period only. The fifth questionnaire consists of 24 items. It has a list of situations and you will be asked to circle the number that most corresponds to your current level of agreement. The last questionnaire contains 3 statements. You will be asked to circle the number that most applies to you and provide your answers based on the level of agreement to each statement.

Risks and Inconveniences: The potential risks of participating in this study are minimal – no greater than what you would experience from completing surveys where you might be asked to share your opinion. However, if any of the questions make you feel uncomfortable, you do not have to respond to those questions.

Costs and Compensation for Participation in this Study: You will not be asked to pay for anything related to the study. You will also not receive a compensation.

Benefits: There will be no direct benefit for you from participation in this study, but it may help in improving knowledge or developing transition or preceptorship programs for future Saudi newly graduated nurses.

Information about participation: Your participation in this study is voluntary, you have the right to withdraw at any time you want. You are free not to answer any of the questions. If you do not want to take part, your decision about the study will not affect your current or future employment.

Confidentiality and Authorization to collect, use and disclose Personal Medical

Information: All information collected about you during this study will be kept confidential. We may decide to present what we find with others or publish our results in scientific journals or at scientific conferences. Only authorized research team of the Institutional Review Board (IRB) and Scientific Committee (RC) at the Ministry of Health, Institutional Review Board at University of Wisconsin-Milwaukee, and Human Research Protection can have access to record, review and analyze them. The questionnaires are anonymous. Your name will not appear anywhere, and no one will know your answers. Information will be coded in symbols known to the research team. The data will be maintained in a password-protected computer. The hard copies of the surveys will be shredded after they entered into Qualtrics (an electronic program). All the information collected for this study will be used for a dissertation research conducted by the Student Principle Investigator. After this study is completed the information stored on a password-protected computer will be deleted once all the data has been analyzed and the dissemination has been completed.

Communication: In the case of any research related inquiries during the study, feel free to contact the study principal investigator (Shaherah Andargeery) through phone number: (00966-556619978). You are free to ask any question about the study, procedures, clarification of the questions or how to answer the questions, or if you want to withdraw from the study.

In case you have inquiries related to your rights as a research subject: You can contact the Institutional Review Board at Tel. 8011111 Ext. 14572. Or UWM Institutional Review Board at 414-229-3173 or irbinfo@uwm.edu

Research Subject's Consent to Participate in Research: I've been given the opportunity to discuss my questions about participating in this study and the research team has answered all my questions if I have any further questions I will call Shaherah Andargeery. By completing the surveys online, I understand that I voluntarily agree to take part in this study. If you choose to take part in this study, you may withdraw at any time. At that point, as no names are on the surveys, we will not know which survey you had submitted. I also understand that by completing these surveys, I am not giving up any of my legal rights and that I have read this entire consent form, including the risks and benefits, and have had all of my questions answered.

I Agree

I Disagree

APPENDIX D: The Nursing Characteristics Questionnaire

1. What is your age? -----
2. What is your gender?
 - Male
 - Female
3. What is your educational level?
 - Diploma degree;
Name of the University/College -----
year of graduation -----
 - Baccalaureate degree;
Name of the University/College -----
year of graduation -----
 - Master degree; year -----
Name of the University/College -----
year of graduation -----
 - Other; Please specify the degree -----
Name of the University/College -----
year of graduation -----
4. What is your marital status?
 - Single
 - Married
 - Widowed
 - Divorced
 - Separated from their spouse
 - Engaged
 - Prefer not to identify
5. Do you have children?
 - Yes
 - No
6. If you answered yes to the previous question, please identify:
 - Number of children under age of 6 months -----
 - Number of children between age of 6 months and 2 years-----
 - Number of children between age of 3 years and 6 years-----
 - Number of children between age of 7 years and 12 years-----
 - Number of children between age of 13 years and 18 years-----
 - Number of children over age of 18 years -----
7. Do you provide care for any dependents other than your children?
 - Yes
 - No
8. If you answered yes to the previous question, please tell us how many people you provide care for other than your children? -----
9. Do you have someone to assist you with:
 - Housework
 - I. Yes
 - II. No

- Dependent care
 - I. Yes
 - II. No
 - Child care
 - I. Yes
 - II. no
10. What is your specialty area of clinical practice?
- Medical Unit
 - Surgical Unit
 - ICU
 - CCU
 - PICU
 - NICU
 - SICU
 - ER
 - OR
 - OB/ GYNE Unit
 - Pediatric Unit
 - Orthopedic Unit
 - Rehabilitation Unit
 - Nephrology Unit/ Dialysis Unit
 - Other; please specify _____
11. How long have you been working as a nurse in the current position/at this position?
Starting month/Year: -----
12. Do you have previous experience working as a nurse?
- Yes; If yes, for how long have you been working?
Starting Month/Year: -----
Ending Month /Year: -----
Please identify your role -----
 - No
13. How long, in months, is/was your unit orientation/preceptorship program at the current job? -----; How many different preceptors were assigned to you at the current job? -----
14. For your first position, how long, in months, was your unit orientation/preceptorship program? -----; How many different preceptors were assigned to you at your first job? -----
15. How many hours are you working per shift?
- 8 hours per shift (Days, evenings, Nights)
 - 12 hours per shift (Days, Nights)
 - Other. Please specify -----
16. What is your monthly salary?
- Less than 5,000 SR
 - Between 5,000 SR and less than 10,000 SR
 - Between 10,000 SR and less than 15,000 SR
 - Between 15,00 SR and less than 20,000 SR
 - More than 20,000 SR

17. Which hospital are you working at?

- King Fahad General Hospital-Jeddah
- King Abdulaziz General Hospital-Jeddah
- East Jeddah General Hospital
- King Abdullah Medical Complex – Jeddah (North Jeddah Hospital)
- Maternity and Children's Hospital
- Al Aziziyah Maternity and Children Hospital
- Al-Thager Hospital-Jeddah
- Al Noor Specialist Hospital
- Ajyad General Hospital
- Heraa General Hospital
- King Abdulaziz Hospital-Makkah
- King Faisal Hospital-Makkah
- Maternity and Children Hospital-Makkah
- King Abdullah Medical City Specialist Hospital-Makkah
- Other; please specify -----

APPENDIX E: Expanded Nursing Stress Scale

Below is a list of situations that commonly occur in a work setting. For each situation you have encountered in your **PRESENT WORK SETTING**, please indicate **HOW STRESSFUL** it has been for you. If you have more than one employer in nursing, please choose one as your primary employer and answer the questions with respect to this employer. If you have changed jobs, please respond with respect to your current nursing employer.

Instructions: Enter the number in the right-hand column that best applies to you.

Statements	Never Stressful	Occasionally stressful	Frequently stressful	Extremely stressful	Does not apply
1. Performing procedures that patients experience as painful.	1	2	3	4	5
2. Criticism by a physician.	1	2	3	4	5
3. Feeling inadequately prepared to help with the emotional needs of a patient's family.	1	2	3	4	5
4. Lack of opportunity to talk openly with other personnel about problems in the work setting.	1	2	3	4	5
5. Conflict with a supervisor.	1	2	3	4	5
6. Inadequate information from a physician regarding the medical condition of a patient.	1	2	3	4	5
7. Patients making unreasonable demands.	1	2	3	4	5
8. Feeling helpless in the case of a patient who fails to improve.	1	2	3	4	5
9. Conflict with a physician.	1	2	3	4	5
10. Being asked a question by a patient for which I do not have a satisfactory answer.	1	2	3	4	5
11. Lack of opportunity to share experiences and feelings with other personnel in the work setting.	1	2	3	4	5
12. Unpredictable staffing and scheduling.	1	2	3	4	5
13. A physician ordering what appears to be inappropriate treatment for a patient.	1	2	3	4	5
14. Patients' families making unreasonable demands.	1	2	3	4	5
15. Listening or talking to a patient about his/her approaching death.	1	2	3	4	5

16. Fear of making a mistake in treating a patient.	1	2	3	4	5
17. Feeling inadequately prepared to help with the emotional needs of a patient.	1	2	3	4	5
18. Lack of an opportunity to express to other personnel on the unit my negative feelings towards patients.	1	2	3	4	5
19. Difficulty in working with a particular nurse (or nurses) in my immediate work setting.	1	2	3	4	5
20. Difficulty in working with a particular nurse (or nurses) outside my immediate work setting.	1	2	3	4	5
21. Not enough time to provide emotional support to the patient.	1	2	3	4	5
22. A physician not being present in a medical emergency.	1	2	3	4	5
23. Being blamed for anything that goes wrong.	1	2	3	4	5
24. The death of a patient.	1	2	3	4	5
25. Disagreement concerning the treatment of a patient.	1	2	3	4	5
26. Feeling inadequately trained for what I have to do.	1	2	3	4	5
27. Lack of support of my immediate supervisor.	1	2	3	4	5
28. Criticism by a supervisor.	1	2	3	4	5
29. Not enough time to complete all of my nursing tasks.	1	2	3	4	5
30. Not knowing what a patient or a patient's family ought to be told about the patient's condition and its treatment.	1	2	3	4	5
31. Being the one that has to deal with the patients' families.	1	2	3	4	5
32. Having to deal with violent patients.	1	2	3	4	5
33. Being exposed to health and safety hazards.	1	2	3	4	5
34. The death of a patient with whom you developed a close relationship.	1	2	3	4	5
35. Making a decision concerning a patient when the physician is unavailable.	1	2	3	4	5

36. Being in charge with inadequate experience.	1	2	3	4	5
37. Lack of support by nursing administration.	1	2	3	4	5
38. Too many non-nursing tasks required, such as clerical work.	1	2	3	4	5
39. Not enough staff to adequately cover the unit.	1	2	3	4	5
40. Uncertainty regarding the operation and functioning of specialized equipment.	1	2	3	4	5
41. Having to deal with abusive patients.	1	2	3	4	5
42. Not enough time to respond to the needs of patients' families.	1	2	3	4	5
43. Being held accountable for things over which I have no control.	1	2	3	4	5
44. Physician(s) not being present when a patient dies.	1	2	3	4	5
45. Having to organize doctors' work.	1	2	3	4	5
46. Lack of support from other health care administrators.	1	2	3	4	5
47. Difficulty in working with nurses of the opposite sex.	1	2	3	4	5
48. Demands of patient classification system.	1	2	3	4	5
49. Having to deal with the abuse from patients' families.	1	2	3	4	5
50. Watching a patient suffer.	1	2	3	4	5
51. Criticism from nursing administration.	1	2	3	4	5
52. Having to work through breaks.	1	2	3	4	5
53. Not knowing whether patients' families will report you for inadequate care.	1	2	3	4	5
54. Having to make decisions under pressure.	1	2	3	4	5

Sources: French, S., Lenton, R., Walters, V., & Eyles, J. (2000). An empirical evaluation of an expanded nursing stress scale. *Journal of Nursing Measurement*, 8(2), 161-178.

APPENDIX F: Role Questionnaire

Please consider the following items. Using the 7-point scale, please rate how each item applies or exists for you personally.

Statements	Very False	Somewhat False	False	Neutral	True	Somewhat True	Very True
1. I feel certain about how much authority I have.	1	2	3	4	5	6	7
2. I have clear, planned goals and objectives for my job.	1	2	3	4	5	6	7
3. I have to do things that should be done differently.	1	2	3	4	5	6	7
4. I know that I have divided my time properly.	1	2	3	4	5	6	7
5. I receive an assignment without the manpower to complete it.	1	2	3	4	5	6	7
6. I know what my responsibilities are.	1	2	3	4	5	6	7
7. I have to buck a rule or policy in order to carry out an assignment.	1	2	3	4	5	6	7
8. I receive assignments that are within my training and capability.	1	2	3	4	5	6	7
9. I work with two or more groups who operate quite differently.	1	2	3	4	5	6	7
10. I know exactly what is expected of me.	1	2	3	4	5	6	7
11. I receive incompatible requests from two or more people.	1	2	3	4	5	6	7
12. I do things that are apt to be accepted by one person and not accepted by others.	1	2	3	4	5	6	7
13. I receive an assignment without adequate resources and materials to complete it.	1	2	3	4	5	6	7
14. Explanation is clear of what has to be done.	1	2	3	4	5	6	7
15. I work on unnecessary things.	1	2	3	4	5	6	7

Source: Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role Conflict and Ambiguity in Complex Organizations. *Administrative Science Quarterly*, 15(2), 150-163.

APPENDIX G: Preceptorship Experience

The following items are designed to determine the effectiveness of the preceptorship you experienced from the first employer by whom you were hired. The statements are to be applied to the first preceptor you were assigned during this preceptorship period only. You are asked to respond to each item according to how you would rank the presence of each characteristic in your first preceptor during your first preceptorship only. Please select the number that represents the degree to which you agree or disagree with each statement.

Statements	Extremely Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Extremely Agree
1. My preceptor provided me with feedback about my strengths.	1	2	3	4	5
2. My preceptor helped me to determine appropriate patient priorities.	1	2	3	4	5
3. My preceptor demonstrated how to problem solve ethical concerns.	1	2	3	4	5
4. My preceptor provided me with the information I needed to care for my patients.	1	2	3	4	5
5. My preceptor encouraged me to use evidence-based practice.	1	2	3	4	5
6. My preceptor kept other nursing staff aware of what I could do.	1	2	3	4	5
7. My preceptor provided me with feedback about what I needed to improve.	1	2	3	4	5
8. My preceptor encouraged me to engage in self-reflection.	1	2	3	4	5
9. My preceptor helped me to learn from errors or near misses (potential errors).	1	2	3	4	5
10. My preceptor allowed me the independence that I needed.	1	2	3	4	5
11. My preceptor considered my learning style (my preference for learning by observing, reading, experiencing, or reflecting).	1	2	3	4	5
12. My preceptor taught me to ask questions (such as What if? or What could these symptoms mean?) as a way to develop my clinical reasoning skills.	1	2	3	4	5

13. My preceptor helped me to interpret clinical situations.	1	2	3	4	5
14. My preceptor demonstrated ways to help patients become partners in their care.	1	2	3	4	5
15. My preceptor taught me how to use information technology for patient care.	1	2	3	4	5
16. My preceptor was instrumental in helping me to establish relationships with people on the interdisciplinary team.	1	2	3	4	5
17. My preceptor explained institutional policies to me.	1	2	3	4	5
18. My preceptor celebrated my successes with me.	1	2	3	4	5
19. The continuity of my learning experience was ensured even when I did not work with my primary preceptor.	1	2	3	4	5
20. My preceptor's patient assignment was adjusted to give us time to work together during the shift.	1	2	3	4	5
21. My preceptor explained the roles of the people who work on my unit.	1	2	3	4	5
22. My preceptor and I had time to discuss what was expected of me.	1	2	3	4	5
23. There was a supportive environment for the preceptor experience in the practice setting.	1	2	3	4	5

Original tools:

Moore, M. L. (2009). Developing the Preceptorship Evaluation Survey. *Journal for Nurses in Staff Development*, 25(5), 249-253. doi:10.1097/nnd.0b013e3181ae2eba.

Roth, J. W., & Johnson, M. P. (2011). Transition to Practice: The North Carolina Initiative. *Journal of Nursing Regulation*, 2(3), 56-60. [http://doi.org/10.1016/S2155-8256\(15\)30269-6](http://doi.org/10.1016/S2155-8256(15)30269-6)

Modified by:

Blegen, M. A., Spector, N., Ulrich, B. T., Lynn, M. R., Barnsteiner, J., & Silvestre, J. (2015). Preceptor Support in Hospital Transition to Practice Programs. *The Journal of Nursing Administration*, 45(12), 642-649. <http://doi.org/10.1097/NNA.0000000000000278>.

APPENDIX H: Halfer-Graf Job/Work Environment Nursing Satisfaction Survey

Keeping in mind that comfort levels often vary over time, please circle the number that most corresponds to your current level of agreement.

Statements	Strongly disagree	disagree	Agree	Strongly Agree
I feel comfortable that I have knowledge and skills to:				
1. Perform my job	1	2	3	4
2. Identify resources for work	1	2	3	4
3. Understand leadership expectations for my performance	1	2	3	4
4. Develop effective working relationships with unit staff	1	2	3	4
5. Get work tasks accomplished	1	2	3	4
6. Manage the demands of the job	1	2	3	4
I feel:				
7. Accepted by my co-workers as a member of the team	1	2	3	4
8. Accepted by other disciplines as a member of the team	1	2	3	4
9. Mistakes are treated as learning opportunities	1	2	3	4
10. Supported by the leadership team.	1	2	3	4
11. My professional contributions are valued by my team members.	1	2	3	4
12. My input is used to address unit issues and improve patient care	1	2	3	4
13. Physicians approach me in a respectful manner	1	2	3	4
14. I have access to resources to get my questions answered	1	2	3	4
15. Staffing schedules are managed fairly	1	2	3	4
16. Comfortable asking questions about things I do not know	1	2	3	4
17. The length of my orientation was adequate	1	2	3	4
18. My orientation influenced my decision to remain on my unit	1	2	3	4
Individually focused questions:				
19. I have the information I need to be able to perform my job	1	2	3	4
20. I am aware of professional opportunities to do my job	1	2	3	4
21. I have been able to participate in the professional development programs that are of interest to me	1	2	3	4

22. I am satisfied with the scheduled days and hours that I work	1	2	3	4
23. I am satisfied with my job	1	2	3	4
24. I plan to remain on my unit of hire after 18 months	1	2	3	4

Source: Halfer, D., & Graf, E. (2006). Graduate nurse perceptions of the work experience. *Nursing Economics*, 24, 150-155.

APPENDIX I: Turnover Intention Scale

Statements	Extremely Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Extremely Agree
1. I often think of leaving the organization.	1	2	3	4	5
2. It is very possible that I will look for a new job next year.	1	2	3	4	5
3. If I could choose again, I would choose to work for the current organization.	1	2	3	4	5

Source: Cammann, C., Fichman, M., Jenkins, D. and Klesh, J. (1979) The Michigan Organizational Assessment Questionnaire. Unpublished Manuscript, University of Michigan, Ann Arbor, MI.

APPENDIX J: Data Analysis Table

Research Questions	Independent Variable	Dependent Variable	Statistical Test*
1.a. What are the characteristics of Saudi NGNs? 1.b. What is the perception of job stress of Saudi NGNs? 1.c. What is the perception of Saudi NGNs regarding the preceptorship experience? 1.d. What is the perception of work environment satisfaction among Saudi NGNs? 1.e. What is the perception of Saudi NGNs regarding role conflict and role ambiguity? 1.f. What is the perception of turnover intention of Saudi NGNs?	Nurse characteristics Job stress Role conflict and ambiguity Preceptorship experience Work environment satisfaction Turnover intention	-	Descriptive statistics
2.a. What are the associations among job stress, role conflict and ambiguity, the preceptorship experience, and work environment satisfaction? 2.b. What are the associations among job stress, role conflict and ambiguity, the preceptorship experience, and work environment satisfaction in regard to turnover intention?	Nurse characteristics Job stress Role conflict and ambiguity Preceptorship experience Work environment satisfaction	Turnover intention	Pearson correlation
3.a. What are the associations among nursing characteristics, job stress, role conflict and role ambiguity, the preceptorship experience, and work environment satisfaction? 3.b. What are the associations among nurse characteristics, job stress, role conflict and role ambiguity, the preceptorship	Nurse characteristics	Job stress Role conflict and ambiguity Preceptorship experience Work environment satisfaction Turnover Intention	Independent-samples t-test, Pearson correlation, and one-way ANOVA

experience, and work environment satisfaction in regard to turnover intention?			
4. Do nursing characteristics, job stress, role conflict and role ambiguity, the preceptorship experience, and work environment satisfaction predict turnover intention when controlling for significant nurse characteristics?	Nurse characteristics (controlling for the significant factors) * Job stress Role conflict and ambiguity Preceptorship experience Work environment satisfaction	Turnover intention	Hierarchal Multiple Regression

*Pending analysis: multicollinearity will be assessed and the control variable will take place.

APPENDIX K: Healthcare System in Saudi Arabia

Approaches Used to Make Policy Change in Saudi Arabia

There are several approaches that can be used to make policy changes. In social communication with colleagues who are working as nurse managers in the quality improvement departments and others who work in the research centers in Jeddah, Saudi Arabia, they indicate that there is no formal process that can be followed to make policy reforms. In the nursing practice settings, the nursing committee members (nurse managers in each department, nurse directors, nurse Chief Executive Officer) are responsible for making periodic nursing policy reforms and update (usually every three years). These reforms should be based on research findings or evidence-based practice. All changes must be approved by the internal organization committee and then from the MOH.

Another way to make policy reform is through direct contact with policymakers and stakeholders in the MOH. The finding from research or suggestions should be presented as a proposal. The proposal must include the current problem that needs to be resolved, the aim of the proposal, reasons and the importance for making policy reform on the current policy, best policy alternatives based on the research results (providing supporting evidence from existing regulations in other countries or other agencies). The proposal can be discussed and communicated with one of the departments that are under the General Administration of Nursing Affairs (GANA) of the MOH.

Another way to discuss and communicate the need for policy change is through MOH eParticipation policy. The MOH develop an electronic network that allows all concerned parties and officials to collaborate in laying out public policies and strategic plans for each project and initiative. The eParticipation is an interactive communication method that allows public

including citizens, residents and business entities to share their meaningful and constructive comments, opinions, suggestions, observations, and complaints about the MOH's services. This initiative is important for upgrading health sectors in Saudi Arabia with a goal of providing high-quality services continuously. Once the point of views or suggestions are received from a community member, there will be directed to the responsible Ministry official. Valuable suggestions will be reviewed, priorities will be specified, and policies will be formulated, and a decision will be made. The MOH posted on its webpage a guideline and the link of the eParticipation to make the participation easy and efficient to the public (MOH eParticipation Policy, 2015).

Professional Nursing Classification

The Saudi Commission for Health Specialties (SCFHS) is the main department for healthcare professional classification, registration, evaluation, and accreditation to work in Saudi Arabia. The nursing board within the SCFHS has certain criteria for registration and licensure. The nursing board is responsible for professional development, accreditation, and regeneration. In the professional development, the role of the nursing board focuses on the nursing practice by setting the scope of practice, the education standards, nursing code of ethics and accountability practice. The nursing board is responsible for the developing standards for the educational, ethical, and practical competency. In accreditation, the nursing board is responsible for the approval and evaluation of educational programs, educational and training healthcare organizations, and qualifications from outside the country. The nursing board role in the regeneration part is to renew the nursing institutions and healthcare professional licenses.

In order to work in clinical practice, the nursing board requires that all nurses register with the SCFHS. The SCFHS considers the length of the nursing programs in addition to the

year of experience when classifying each member. Nurses with Diploma or Associate Degree in Nursing are classified as technical or nurse assistant. Nurses with a Bachelor Degree in Nursing or with a Master Degree in Nursing with less than four years of experience are accredited as a nursing specialist. However, Nurses who obtain a Master of Science in Nursing with four years of experience as a minimum or a Ph.D. in Nursing with less than three years of experience are classified as a senior specialist (SCFHS, 2007) – Classification Academic Certification). If nurses have a Ph.D. in Nursing Degree in addition to three years of clinical experience, they are recognized as Nursing Consultants. The nursing board also has training and continuing education accreditation standards. All nurses must attend several continuing education programs, which are specified by the SCFHS, in order to renew their license.

After successfully completing an accredited nursing degree from national or international nursing programs, NGNs became certified nurses in Saudi Arabia to practice in one of the clinical healthcare settings without taking any professional licensure examination that evaluates their level of knowledge and competencies to practice safely. Other countries, such as the US and Canada, require that all graduate nurses in addition to expatriates pass a licensure examination in nursing to practice in healthcare clinical settings. The aim of the US or Canadian professional licensure examination is to test the minimum level of nursing competency that is necessary for providing effective nursing care and safe practice in healthcare settings (Romeo, 2013). Nurse applicants for this exam are required to think critically and select answers that reflect the most appropriate decisions when they provide nursing care. Successfully passing the exam will ensure protecting people's lives and reflect their ability for critical thinking and decision making through analyzing, evaluating, and synthesizing information (Romeo, 2013).

The performance of NGNs on the exam has been designated for judging the quality of nursing educational programs (Romeo, 2010).

Recently, the SCFHS (2016) conducted practical assessment exams for a sample of 276 Saudi graduates who obtained a bachelor's degree in nursing from private educational institutions, to find out the level of knowledge of basic nursing skills. This exam was conducted for the purpose of classification of NGNs with a BSN degree to nursing specialist level and providing them the Saudi nursing license. The success rate was 19% of the total BSN applicants (SCFHS, 2016). This rate, unfortunately, reflected a clear and substantial deficiency in knowledge and practical skills of the nursing applicants. It also indicates the weakness of their qualifying level, compared with their peers from Asian and other Arab countries who took the same exam (SCFHS, 2016). Accordingly, the SCFHS provided an exceptional test to ensure NGNs' skills before their classification and before they are allowed to practice in the health sector in Saudi Arabia.

The SCFHS is currently working on the establishment of a standardized nursing licensure examination for nursing in Saudi Arabia (SCFHS, 2017). This exam will be mandatory in the country for all the NGNs from national and international educational organizations as well as expatriates by July 2017. However, the SCFHS placed a 50% as a standard of the minimum passing rate to be qualified for the Saudi nursing license, which is considered very low. This exam will be important to determine if new nursing staff are prepared for entry-level nursing practice and meet the minimum competency level for providing safe and effective nursing care practice. Nevertheless, a transformation of this magnitude will not happen quickly or easily.

Role of Nursing Management under the MOH in Saudi Arabia

The MOH established the GANA on January 2003 (MOH, 2017). According to the MOH (2017), the GANA is intended for nursing development throughout the nation. The Assistant Undersecretary for Support Medical Services is directly managing the GANA. The GANA has several departments and divisions (See Figure 9 in Appendix A). The major departments under the GANA are Management of Nursing Care and Evidence-Based Practice, Training and Continuing Education Department, Nursing Research and Practice Development Department, Total Quality Management Department, and Information and Technology and Media Center (MOH, 2017).

The major responsibilities of the GANA are developing planning strategies for nursing development through the entire country, developing and modifying rules, regulations, policies, and procedures for the practice of the nursing profession and the provision of nursing care (MOH, 2017). Other responsibilities include formulating nursing policies and reviewing the rules and regulations related to salaries, promotions and physical incentives for the nursing staff so that the nursing care responsibilities are kept in line with the relevant departments (MOH, 2017). The MOH (2017) states that the GANA is also accountable for formulating a strategic plan to be in line with the strategic plan of the MOH, supervising the performance of the nursing staff in the regions and governorates, and ensuring optimal investment for nursing and midwifery staff in health facilities. In addition, the responsibilities of the GANA are measuring nursing performance using measurement tools to improve and develop nursing practice competencies in collaboration with competent departments and implementing comprehensive quality standards for nursing locally and internationally to improve the performance of nursing and maintain the safety of patients. Other tasks of the GANA are conducting research and nursing studies that

encourage nursing on evidence-based practice, updating and developing an automated system for collecting information and data on the labor force and nursing care at the level of the MOH to identify the actual needs and draw future policies in cooperation with competent departments. It is also responsible for coordinating with academic institutions to meet the needs of health services of qualified nursing staff and proposing the development of educational curricula in this field to keep up with the progress in service performance (MOH, 2017). The GANA play an important role in coordinating with the General Administration for Training and Scholarship for accrediting the nursing programs from the Saudi Commission for Health Specialties and supporting programs in the field of nursing. In addition, the GANA is responsible for participating in the preparation and coordination of specialized programs for nursing with the Saudi Commission for Health Specialties, and participation in the work of Hajj “religious practice” committees (MOH, 2017). Other responsibilities include reviewing applicants’ files for internal and international scholarships and participating in the local and international organizations, which will develop nursing and keep it updated with the development. This department is accountable for providing the necessary information on the administration to prepare the draft budget of the ministry and preparing reports on the activities of the administration and its achievements and proposals for the development of works that are submitted to officials (MOH, 2017). The GANA is representing Saudi Arabia in the field of nursing at the Gulf and international levels and cooperation with the World Health Organization and international organizations in the field of nursing. This department is also accountable for establishing mechanisms for the development of public administration systems for nursing and supervising departments and formation of nursing committees for internal and external contracting and supervision. The GANA is participating in quality committees and technical

committees in the ministry, preparing and updating the general plan for disasters and emergencies in the ministry, and training them and provide advice to the Ministry's officials and members of nursing staff regarding nursing affairs at all levels (MOH, 2017).

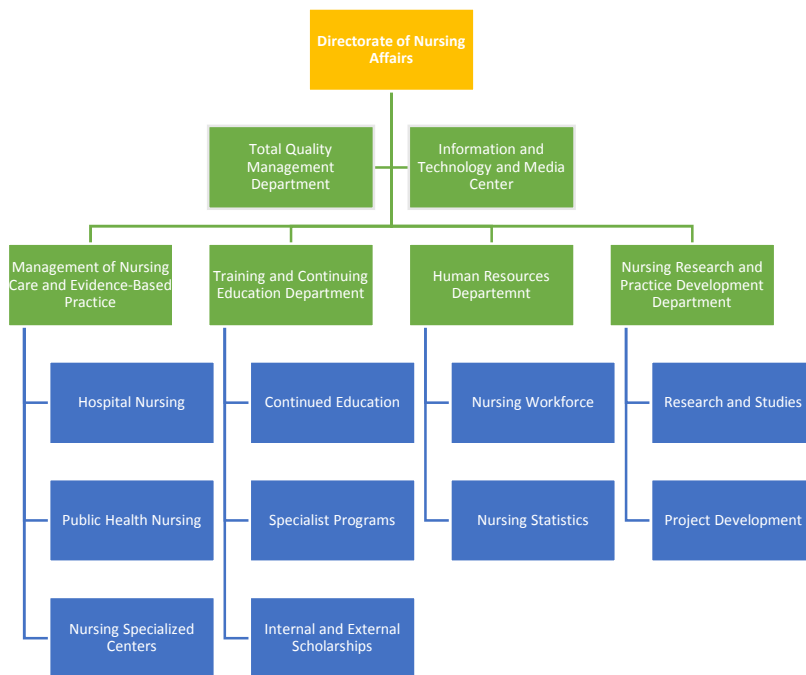


Figure 9. MOH (2016). General Administration of Nursing Affairs: Organizational Structure.

Saudi Government Strategies for Recruiting and Retaining Nursing Workforce

The Saudi Arabian government implemented several strategies that focus on recruiting and retaining the nursing workforce. The Saudi Arabian government places its effort to initiate and expand the nursing education system throughout the country that offers training (internship) programs for all nurses while they are studying and before their graduation. It also offers local and international scholarship programs for all citizens who want to work and/or pursue their education in the nursing fields. The government also passed a policy called Saudization to enhance a number of the national workforce and replace the foreign expatriates with indigenous nurses.

Nursing Education

Nursing education was provided in post-secondary health institutions or junior colleges, which were affiliated with the MOH (Almalki, FitzGerald, & Clark, 2011b). However, these organizations were transferred to the Ministry of Higher Education to improve the quality of nursing education (Alghamdi & Urden, 2016). The Ministry of Higher Education has its own educational facilities and financial resources that are allocated by the government. All public (under the Ministry of Higher Education) nursing education programs are offered for free for all citizens. The first nursing college was established by the Ministry of Higher Education at King Saud University in Riyadh in 1976 (Almalki et al, 2011b). King Saud University offered the first Bachelor of Science in Nursing (BSN) degree. In 1977, the Bachelor of Nursing program was launched at King Abdul-Aziz University in Jeddah, and subsequently at King Faisal University in Dammam in 1987 (Alghamdi & Urden, 2016). The Master of Science in Nursing (MSN) was established at King Saud University in 1987 (Alghamdi & Urden, 2016).

Since 2002, other government agencies such as the Medical Services of Armed Forces Hospital, the National Guard of Health Affairs, and the King Faisal Specialist Hospital and Research Center have provided nursing educational programs to award a Diploma in Nursing or an Associate Degree in Nursing (Alghamdi & Urden, 2016). The nursing programs of these agencies last for two years and are followed by six months of clinical practice (Alghamdi & Urden, 2016). Admission to these programs required finishing high school education (12th grade) in natural sciences with high GPA. All nursing programs were limited to female students. Nursing programs offered in other universities and male nursing programs were established in 2004 (Aldossary et al., 2008).

The American Nursing Association recommended the BSN as a minimum level for nursing practice (Nelson, 2002). This is a critical step towards improving the quality and safety of nursing care. Because of the nursing shortage in Saudi Arabia, there will be a need for Saudi nursing assistants to perform basic nursing procedures that might consume the time of the registered nurses. A huge step has been made in 2010 when all nursing programs started to offer a BSN degree as a minimum degree required for professionalism and as an entry level to nursing practice (Alghamdi & Urden, 2016). Bridging Nursing programs were developed for nursing diploma and associate degree nurses to pursue a BSN degree (KAU, 2017; KSU, 2017). To award the BSN degree, students in the Bridging Nursing Program should complete two years of courses and six months of internship (KAU, 2017; KSU, 2017).

The BSN degree lasts for four years, that involves nursing courses and supervised clinical practice. Upon the completion of the 4 years, all nursing students are required to take one year of consolidated internship clinical practice (KAU, 2017; KSU, 2017). The internship practical year is mandatory to strengthen nursing students' skills, allow them to apply nursing knowledge in clinical practice, and enhance their competency in practical skills and procedures (KAU, 2017; KSU, 2017). The MSN is offered in four specialty areas: Medical and Surgical Nursing, Obstetrics and Gynecologic Nursing, Nursing Administration, and Psychiatric and Mental Health Nursing (KAU, 2017; KSU, 2017).

Internship Program

After completing the required courses, nursing students are required to complete a specified period in the internship program to attain the nursing degree and nursing license. The internship program is an intensive training in clinical practice, where students rotate and work in several clinical areas (KAU, 2017; KSU, 2017). For example, nursing students in the BSN

degree are mandated to complete 12 months in the internship program. The internship clinical rotation includes surgical rotation, medical rotation, maternity rotation, pediatric rotation, critical care rotation, and clinical elective area. In each clinical rotation area, students spend 2 months, except for the clinical elective area where students spend only 7 weeks (Internship Logbook, 2017). The surgical rotation includes training for 3 weeks in the Female Surgical Ward, 3 weeks in the Male Surgical Ward, and 2 weeks in the Operation Room. The medical rotation includes training in the Male Medical Ward for 3 weeks, Female Medical Ward for 3 weeks, and Dialysis Unit for 2 weeks. The maternity rotation includes training in the Obstetric Ward for 3 weeks, the Gynecology Ward for 3 weeks, and in the Labor and Delivery Room for 2 weeks. The pediatric rotation includes training in the Pediatric Ward for 3 weeks, the Neonatal Nursery Unit for 3 weeks, and Neonatal and Pediatric Intensive Care Units for 2 weeks. Critical Care Rotation includes training in the Emergency Department for 4 weeks and Intensive Care Unit for 4 weeks. At the end of the internship program, nursing students select a clinical area or two (clinical elective) for the remaining 7 weeks (Internship Logbook, 2017).

The goal of the internship program is to apply the theoretical information that was gained during the academic years into clinical practice, strengthen practice skills and knowledge, and facilitate the transition of nursing students to the professional role (Clinical Affair Unit, 2017). Nursing students are allocated into one of the hospitals in Saudi Arabia, which were previously specified by the nursing school. All nursing students are performing the tasks under the direct supervision of experienced nurses in the designated area. By the end of the internship period, nursing students are given a certificate for passing the internship program (Clinical Affair Unit, 2017).

The objectives of the internship program are to develop basic nursing knowledge to make a comprehensive and accurate patient assessment of their physiological, psychological, and educational needs and functional status, prioritize nursing care, and use their critical thinking skills to participate in nursing care plans (Clinical Affair Unit, 2017). It is also aimed at developing effective verbal and nonverbal communications, and enhancing the use of professional standards that improve the professional performance in nursing practice. Nursing students are responsible for helping registered nurses or nurse supervisors in collecting patient data and participating in the patient assessment by collecting their physical, social, and psychological data (Clinical Affair Unit, 2017).

The nursing intern students are responsible for providing appropriate information to the staff, doctors, and responsible healthcare professionals and planning and implementing a patient education that emphasizes health maintenance and improvement (Clinical Affair Unit, 2017). They are responsible for developing and reviewing the nursing care plans that reflect patients' conditions, providing treatment based on its principles and document it appropriately. Other responsibilities include applying nursing skills in general and specialized units, performing technical skills according to the hospitals' policy and procedures, and performing appropriate analysis of patient condition, work through it, and provide assistance as needed (Clinical Affair Unit, 2017). Nursing intern students are responsible for participating in the provision of safe, effective and appropriate nursing care through quality improvement processes, reporting critical changes in patient conditions to healthcare providers in a timely manner, and documenting nursing and medical procedures and their outcomes on the patients' medical record (Clinical Affair Unit, 2017).

Nursing students are given an internship program logbook and nursing internship evaluation forms. The nursing internship evaluation forms are filled by the Head Nurse (Nurse Manager) of each area. The Head Nurses evaluate the nursing student performance on selected criteria that was developed by the Supervisor of the Nurse Internship at the university. The Head Nurse and the Clinical Instructor are responsible for evaluating the strengths and weaknesses of the nursing intern. The nursing students must receive 60% or more in each area. Students who receive less than 60% in any evaluation must repeat the clinical rotation in that area (Clinical Affairs Unit, 2017). The internship program logbook contains major skills and procedures, where nursing students need to demonstrate and apply them during their clinical training. This logbook is designed to offer a guide for nursing students to ensure that they achieve clinical objectives of each area.

A faculty member from King Abdul-Aziz program mentioned that one of the critiques of the internship program is that the nurse preceptors are not ready for teaching and supporting nursing students (Fareed, 2017). According to Fareed (2017), some of the nursing interns have high expectations to work as future staff nurses, while in reality, they were neither able to participate in developing the treatment plans nor providing care for patients. Teaching and guiding nursing students make an extra effort for the preceptors, while they need time to take care of their patients. Another critique is that nursing students are not evaluated by their preceptors or immediate supervisors, but by the nurse managers of each department. Nursing intern students might receive unfair evaluations that could influence their nursing job satisfaction.

Scholarship Programs

International scholarship programs were established in 1996 to meet the growing need for indigenous nurses (Almalki et al, 2011b). These programs are offered by multiple organizations such as universities, the Ministry of Higher Education, the MOH, and Saudi public hospitals such as King Faisal Specialist Hospital and Research Center and the National Guard Health Affair (Almalki et al, 2011b). In the 4th stage of King Abdullah International Scholarship Program, priority has been given to applicants to medical specialties and health majors including nursing (Almalki et al, 2011a). The scholarships enable Saudi students, Saudi nurse leaders and educators of both genders to study abroad. The focus of the scholarship programs is to prepare students and highly educated and qualified Saudi nurses to take the lead in the nursing profession in Saudi Arabia. Local scholarship programs must be initiated for Saudi nurses who are unable to study abroad (Almalki et al, 2011b). Such programs will allow Saudi nurses to seek higher education, work, and be with their families while remaining in their home country. The aim of the scholarship programs is to improve skills of current nurses and enhance the quality of healthcare, while reducing turnover among current healthcare professional (Almalki et al, 2011b).

Some of the critiques of the scholarship programs are that not all nurses, especially women are able to travel. In contact with nursing colleagues, they mentioned several barriers to continue their education such as personal allowance payment from the government is not enough to pay for living expenses and child daycare. Increased family responsibilities and satisfaction with nursing salary are other barriers that keep Saudi citizens away from continuing their education. Another barrier is the inability of Saudi citizen to meet the requirements of the national or international scholarship and the requirements for the entrance to nursing programs.

Some of the issues that contribute to these barriers are the lack of English proficiency and having a low GPA.

Saudization

Many expatriate nurses left their work without notice during the second Gulf War in 1990 (Aboshaiqah, 2016). Because of the economic instability and political changes, it is expected that additional expatriate nurses will leave their place of employment (Aboshaiqah, 2016). Currently, the Saudi Arabian government formed a policy called “Saudization” to create higher employment opportunities for Saudi nationals. This reform mandates that companies and organizations in all fields must attract and employ Saudis by giving them the opportunities to prove their capabilities for the job and providing benefits and conditions to keep them on the job (Alboliteeh, 2015). They must be guided and trained to qualify them for their allocated jobs. Increasing the number of Saudi nationals will have a direct effect in reducing the dependence on expatriates who work in Saudi Arabia.

One of the critiques of the Saudization includes failure of the Saudi government to meet the increasing demand for national nursing labors, while the dependence on the expatriates is still increasing (AlYami & Watson, 2014). The Saudi government passed a National Transformation Program 2020 to increase the attractiveness of nurses. They indicated that there are 70.2 qualified Saudi nurses for every 100,000 people, while the target they would like to reach is 150 qualified Saudi nurses for every 100,000 people by 2020 (National Transformation program 2020, 2016). Thus, there will be a huge challenge to supply the healthcare system with qualified nurses through the upcoming 4 years as the need of is more than the double. It will be also an increased dependence on the expatriate nurses at least in the following 10 years. Another critique of the Saudization is that the salaries and benefits that offered to Saudi nurses are 20% to 25%

less than what is offered to the expatriate nurses (Gazzaz, 2009). This might impact negatively on qualified nurses' satisfaction and consequently increase their turnover rate.

Recommendations to Address Shortage of Trained Nurses in Saudi Arabia

Long-term plans are urgently required to tackle the nursing shortage through recruiting indigenous nurses and retaining current expatriate nurses. Some of the proposed recommendations to address the nursing shortage in Saudi Arabia are focusing on nursing education, public education, research implementation, and creating a healthy work environment.

Nursing Education

Nursing educational programs should be available and accessible for Saudi citizens. Two nursing colleges that offered BSN were established in 1976 (KSU, 2017). Nursing programs were gradually extended to offer graduate studies. In addition to the seven-existing universities that were available around the country, 18 new universities were established in 2006 by the Ministry of Higher Education (Alboliteeh, 2015). The government must establish more colleges and training programs for nurses around the country. Financial support would encourage more students to pursue nursing education and consider nursing as a future career. The widespread implementation of degree level of education for nurses will be beneficial to enhance the level of nursing education and to attract and retain Saudi nurses. The nursing image can be improved by increasing the number of Saudi nurses with degree-level education (Aboshaiqah, 2016). Nursing education must address the religious and cultural aspects that are unique to Saudis (Aboshaiqah, 2016). Nurse education must also emphasize on that there is no conflict between being a Muslim nurse.

Public Education

Public attitudes have a great influence on an individual's decision to select nursing as a career. It is the responsibility of nurses in the profession to educate the public about nursing as skilled healthcare professionals (Aboshaiqah, 2016). They must emphasize that nurses require knowledge and skills and they must be competent to provide high-quality healthcare. The media can be used to transform the nursing image in Saudi Arabia (Alwagait, Shahzad, & Alim, 2015). Nursing leaders can play an important role in formulating the right messages and presenting them through the right contexts including social media (Alwagait et al., 2015). Nurse leaders can target any campaigns intended at raising awareness of nursing as a respectable and valuable profession (Aboshaiqah, 2016). Potential campaigns could be targeted from schools and colleges, clinical practice, and doctoral-prepared nurses. High school students should be targeted by providing awareness programs related to the importance of nursing roles (Aboshaiqah, 2016). Field trips could be initiated to the nursing colleges and hospitals to experience how nurses are prepared and apply their knowledge and skills into real practice. Nurse educators must identify their responsibilities in forming a professional identity. They must recognize the value and sustained contribution that nurses do to healthcare. Nurse educators must emphasize that nurses are considered highly skilled and autonomous professionals (Aboshaiqah, 2016). Nurses also have their own contributions to develop theory, research, and practice in the nursing field.

Research Implementation

Conducting continuous research will be important to understand the barriers that lead high school graduates to dismiss selecting the nursing as a future career. As being a student in Saudi Arabia, several nursing students (13 students out of 86) changed the nursing track after completing the first year of nursing education. They either choose to continue their education in

the other healthcare fields or they choose science disciplines such as chemistry, physics, or biology degree. Thus, future research will be important to understand the reasons for changing nursing education track to other disciplines. It is also important to conduct a research about what could entice and retain nursing students to stay in the nursing field.

Creating a Healthy Work Environment for Nurses

Hospitals need to develop policies that address nursing benefits to attract NGNs and retain qualified and experienced nurses. Benefits can include continual professional practice and professional development, opportunities for career progression, flexibility in scheduling, and competitive salaries (Aboshaiqah, 2016). Reducing working hours and increasing part-time contracts could retain qualified nurses and attract more nurses to the profession. The healthy workplace can be improved by ensuring adequate staffing levels and enhancing teamwork. Recruitment and retention could be increased by increasing benefits such as having on-site childcare. Nurses should be empowered to participate in decision-making and have their voice regarding patient care and working condition.

List of Tables

Table 1: Descriptions of Psychometric Properties of the Scales

Variables	Scales/Authors	Number of items	Responses	Cronbach α in previous studies	Cronbach α of the Current Study	Cronbach α of the Current Study
Nursing Characteristics	Developed by the student PI	27 items				
Job Stress	The Expanded Nursing Stress Scale (French, Lenton, Walters, & Eyles, 2000).	54 items	5-point Likert scale: (1) never stressful (2) occasionally stressful (3) frequently stressful (4) always stressful (5) does not apply.	.65-.96	.646	.938
Role Conflict and Ambiguity	The Role Questionnaire (Rizzo, House, & Lirtzman, 1970).	14 items	7-points Likert scale: (1) very stressful (2) somewhat stressful, (3) false (4) neutral (5) true (6) somewhat true (7) very true	.70-.87	.774	.730
Preceptorship Experience	Preceptorship Experience Scale (Blegen, et al., 2015).	23 items	5-points Likert scale: (1) extremely disagree (2) slightly disagree (3) neither agree nor disagree (4) slightly agree (5) extremely agree.	.86-.97	.972	.971
Work Environment Satisfaction	The Halfer-Graf Job/Work Environment Nursing Satisfaction	24 items	4-point Likert scale: (1) strongly disagree (2) disagree	.88-.96	.930	.924

	Survey (Halfer & Graf, 2006).		(3) agree (4) strongly agree			
Turnover Intention	The Turnover Intention Scale (Cammann, Fichman, Jenkins, and Klesh, 1979)	3 items	5-points Likert scale: (1) extremely disagree (2) slightly disagree (3) neither agree nor disagree (4) slightly agree (5) extremely agree.	.77-.78	.766	.713

Table 2: Descriptive Analysis of the Nursing Characteristics

Variable	n	%	μ (Median)	SD	Min Max	Skewness Kurtosis
Age						
≤27 years	120	50.4%	27.48 (27)	2.75	22 39	.979
>27 years	108	45.4%				1.576
NI	10	4.2%				
Gender						
Male	38	16%				-1.787
Female	188	79%				1.202
NI	12	5%				
Marital Status						
In a relationship	122	51.3%				.171
Not in a relationship	103	43.3%				-1.989
NI	13	5.5%				
Monthly Salary						
≤ 10,000 SR	105	44.1%				-.159
> 10, 000 SR	123	51.7%				-1.992
NI	10	4.2%				
Area of practice						
Critical Area	118	49.6%				-.025
Non-Critical Area	120	50.4%				-2.016
Hospital						
Located in Jeddah	143	60.1%				.414
Located in Makkah	95	39.9%				-1.844
Working Hours per Shift						
< 9 hours	111	46.6%				-.070
≥ 9 hours	119	50%				-2.013
NI	8	3.4%				
Educational level						
Diploma	62	26.1%				-.010
Bachelor	148	62.2%				-.180
Higher education	19	8%				
NI	9	3.8%				
Graduation date (In year)						
≤2.25 years	78	32.8%	2.93 (3)	1.26	.17 5	.054
>2.25 and ≤ 3.5 years	85	35.7%				-1.430
>3.5	71	29.8%				
NI	4	1.7%				
University Degree Completed						
Public University	105	44.1%				1.029
Private University	53	22.3%				-.074
Outside the KSA	15	6.3%				
NI	65	27.3%				
Nurses Having Children						
Yes	74	31.1%				-.795
No	160	67.2%				-1.379
NI	4	1.7%				

Variable	n	%	μ (Median)	SD	Min Max	Skewness Kurtosis
Nurses with Children by Each Group	n=74					
≤ 2 years old	25	33.8%				-.026
>2 years old	22	29.7%				-1.594
Both groups	26	35.1%				
NI	1	1.4%				
Total no. of Children/ Nurse	n=74		1.89 (2)	.792	1 4	.372 -.807
1 child	26	35.1%				
2 children	30	40.5%				
3+ children	17	23%				
NI	1	1.4%				
Receive Assistant with Child Care	n=74					
Yes	42	56.8%				.279
No	32	43.2%				-1.977
Providing Care for Dependents other than Children (e.g. disabled or elder people)						-1.808 1.279
Yes	38	16%				
No	191	80.3%				
NI	9	3.8%				
Number of Dependents other than Children (e.g. disabled or elder people)	n=38		1.81 (1)	1.41	1 7	.494 -1.881
1 dependent	22	57.9%				
2+ dependents	14	36.8%				
NI	2	5.3%				
Assistant with care for dependents other than Children (e.g. disabled or elder people)	n=38					-.056 -2.114
Yes						
No	18	47.4%				
NI	20	52.6%				
	1	2.6%				
Assistant with housework						-.185 -1.983
Yes	104	43.7%				
No	125	52.5%				
NI	9	3.8%				
Length of experience in the current position (in years)			1.65	1.06	.08 3	-.062 -1.544
≤ 1 year and 8 months	100	42%				
> 1 year and 8 months	99	41.6%				
NI	39	16.4%				
Length of the preceptorship in the current position (In month)			3.68	3.57	.00 12	1.299 .789
No orientation	11	4.6%				
< 3 months	55	23.1%				
= 3 months	63	26.5%				
> 3 months	53	22.3%				
NI	56	23.5%				
Number of preceptors in the current position			2.31 (2)	2.00	0 14	.530 -.942
No preceptor						
1 preceptor	20	8.4%				

Variable	n	%	μ (Median)	SD	Min Max	Skewness Kurtosis
2 preceptors	66	27.7%				
3 preceptors	31	13.0%				
4 preceptors	23	9.7%				
5 or more preceptors	21	8.8%				
NI	23	9.7%				
	54	22.7%				
Previous experience						
Yes	62	26.1%				-1.052
No	169	71%				-.901
NI	7	2.9%				
Length of experience in the previous position (In year)	n=62		1.11	.67	.17 2.75	.552 -1.762
≤ 1 year	34	54.8%				
>1 year	20	32.3%				
NI	8	12.9%				
Total years of experience (In year)			1.87	1.04	.08 4.25	.481 -1.834
≤ 2 years	108	45.4%				
> 2 years	92	38.7%				
NI	38	16%				
Role in the previous experience	n=62					
Staff Nurse	47	75.8%				.330
Nurse assistant	4	6.5%				.650
NI	11	17.7%				
Length of the preceptorship in the previous experience (In month)	n=62		1.83	1.57	0 6	-.394 -.613
No orientation	4	6.5%				
≤ 1 month	24	38.7%				
> 1 month	20	32.3%				
NI	14	22.6%				
Number of preceptors in the previous work	n=62		1.77 (1)	1.32	0 6	-.125 -.200
None	4	6.5%				
1 preceptor	20	32.3%				
> 1 preceptor	25	40.3%				
NI	13	21%				

NI: Not Identified; Min: Minimum; Max: Maximum

Table 3: Correlation Between the Study Variables and Turnover Intention

	Turnover Intention	Stress	Preceptorship	Satisfaction	RoleCA
Turnover Intention	1				
Stress	r= .194, p= .003	1			
Preceptorship	r= -.276, p= .000	r= -.193, p= .003	1		
Satisfaction	r= -.320, p= .000	r= -.198, p= .002	r= .604, p= .000	1	
RoleCA	r= .384, p= .000	r= .334, p= .000	r= -.468, p= .000	r= -.389, p= .000	1

***RoleCA: Role Conflict and Ambiguity**

Table 4: Descriptive Statistics for the Overall Scales used in the Research Study

	Mean	SD	Min	Max	skewness	kurtosis
Stress	145.12	28.95	54 (77)	216	.042	-.219
Role	56.30	8.33	14 (22)	98(84)	.024	1.901
Role Ambiguity	19.36	4.67	9	35	.262	.427
Role Conflict	37.24	6.77	14	54	.025	.311
Preceptor	77.93	22.97	23	115	-.503	-.355
Satisfaction	70.70	11.43	24 (39.65)	96	.031	.019
TI	10.22	3.23	3	15	-.330	-.418

Table 5: Participants' Perceptions of the Expanded Nursing Stress Scale

Statements	# of Responses	Never Stressful or does not apply	Occasionally stressful	Frequently stressful	Extremely stressful	μ	SD	Skewness Kurtosis
1. Performing procedures that patients experience as painful.	237	11.8%	39.9%	27.7%	20.2%	2.57	.986	.115 -.938
2. Criticism by a physician.	237	11.8%	35.7%	26.1%	26.1%	2.67	.993	-.024 -1.118
3. Feeling inadequately prepared to help with the emotional needs of a patient's family.	238	26.1%	36.6%	17.6%	19.7%	2.31	1.065	.345 -1.104
4. Lack of opportunity to talk openly with other personnel about problems in the work setting.	238	23.5%	26.9%	23.1%	26.5%	2.53	1.120	.000 -1.365
5. Conflict with a supervisor.	238	26.5%	26.9%	18.1%	28.6%	2.49	1.165	.071 -1.460
6. Inadequate information from a physician regarding the medical condition of a patient.	237	14.3%	27.7%	22.7%	34.9%	2.78	1.078	-.259 -1.262
7. Patients making unreasonable demands.	237	13.9%	28.6%	19.7%	37.4%	2.81	1.090	.269 -1.309
8. Feeling helpless in the case of a patient who fails to improve.	238	15.1%	29.4%	18.5%	37%	2.77	1.106	-.220 -1.358
9. Conflict with a physician.	238	24.4%	31.1%	22.3%	22.3%	2.42	1.087	.146 -1.262

Statements	# of Responses	Never Stressful or does not apply	Occasionally stressful	Frequently stressful	Extremely stressful	μ	SD	Skewness Kurtosis
10. Being asked a question by a patient for which I do not have a satisfactory answer.	237	21.4%	35.3%	22.3%	20.6%	2.42	1.045	.187 -1.141
11. Lack of opportunity to share experiences and feelings with other personnel in the work setting.	238	26.5%	32.4%	23.9%	17.2%	2.32	1.047	.243 -1.125
12. Unpredictable staffing and scheduling.	236	22.3%	29.8%	19.7%	27.3%	2.53	1.120	.046 -1.369
13. A physician ordering what appears to be inappropriate treatment for a patient.	236	18.5%	33.2%	18.9%	29.4%	2.59	1.098	.013 -1.342
14. Patients' families making unreasonable demands.	238	9.7%	28.2%	23.5%	38.7%	2.91	1.025	-.367 -1.149
15. Listening or talking to a patient about his/her approaching death.	238	32.8%	13%	17.6%	36.6%	2.58	1.279	-.125 -1.674
16. Fear of making a mistake in treating a patient.	236	18.9%	27.7%	18.9%	33.6%	2.68	1.133	-.138 -1.407
17. Feeling inadequately prepared to help with the emotional needs of a patient.	235	28.2%	34.9%	18.9%	16.8%	2.25	1.049	.387 -1.034

Statements	# of Responses	Never Stressful or does not apply	Occasionally stressful	Frequently stressful	Extremely stressful	μ	SD	Skewness Kurtosis
18. Lack of an opportunity to express to other personnel on the unit my negative feelings towards patients.	237	33.6%	31.5%	18.5%	16%	2.17	1.069	.458 -1.043
19. Difficulty in working with a particular nurse (or nurses) in my immediate work setting.	236	23.5%	29.8%	19.7%	26.1%	2.49	1.120	.087 -1.360
20. Difficulty in working with a particular nurse (or nurses) outside my immediate work setting.	237	37.8%	28.2%	14.7%	18.5%	2.14	1.123	.521 -1.123
21. Not enough time to provide emotional support to the patient.	237	25.6%	37%	21.4%	15.5%	2.27	1.014	.347 -0.963
22. A physician not being present in a medical emergency.	237	14.3%	21.4%	19.3%	44.7%	2.95	1.113	-.524 -1.172
23. Being blamed for anything that goes wrong.	238	11.8%	19.3%	21.8%	47.1%	3.04	1.067	-.524 -1.172
24. The death of a patient.	237	13.4%	11.3%	20.2%	54.6%	3.16	1.086	-.972 -.495
25. Disagreement concerning the treatment of a patient.	236	20.2%	25.6%	25.6%	27.7%	2.61	1.099	-.120 -1.306
26. Feeling inadequately trained for what I have to do.	237	21%	26.1%	22.7%	29.8%	2.62	1.124	-.103 -1.372

Statements	# of Responses	Never Stressful or does not apply	Occasionally stressful	Frequently stressful	Extremely stressful	μ	SD	Skewness Kurtosis
27. Lack of support of my immediate supervisor.	238	18.1%	23.9%	23.1%	34.9%	2.75	1.119	-.272 -1.319
28. Criticism by a supervisor.	237	21.4%	28.2%	20.2%	29.8%	2.59	1.130	-.039 -1.398
29. Not enough time to complete all of my nursing tasks.	236	12.6%	21.8%	18.5%	46.2%	2.99	1.095	-.571 -1.111
30. Not knowing what a patient or a patient's family ought to be told about the patient's condition and its treatment.	238	23.1%	31.1%	21%	24.8%	2.47	1.101	.103 -1.310
31. Being the one that has to deal with the patients' families.	237	25.6%	27.7%	20.2%	26.1%	2.47	1.137	.088 -1.395
32. Having to deal with violent patients.	238	15.5%	19.3%	16.8%	48.3%	2.98	1.142	-.593 -1.167
33. Being exposed to health and safety hazards.	237	5%	23.1%	25.6%	45.8%	3.13	.939	-.627 -.819
34. The death of a patient with whom you developed a close relationship.	238	23.1%	20.2%	13.4%	43.3%	2.77	1.229	-.306 -1.539
35. Making a decision concerning a patient when the physician is unavailable.	237	25.6%	25.6%	19.3%	29%	2.51	1.163	.019 -1.462
36. Being in charge with inadequate experience.	238	16.4%	23.1%	21.4%	39.1%	2.83	1.119	-.373 -1.281

Statements	# of Responses	Never Stressful or does not apply	Occasionally stressful	Frequently stressful	Extremely stressful	μ	SD	Skewness Kurtosis
37. Lack of support by nursing administration.	238	12.6%	18.9%	17.2%	51.3%	3.07	1.098	-.721 -.948
38. Too many non-nursing tasks required, such as clerical work.	237	16.4%	19.7%	14.7%	48.7%	2.96	1.162	-.563 -1.244
39. Not enough staff to adequately cover the unit.	238	4.2%	16.4%	13.4%	66%	3.41	.909	-1.250 .219
40. Uncertainty regarding the operation and functioning of specialized equipment.	236	15.5%	31.1%	26.1%	26.5%	2.64	1.040	-.080 1.189
41. Having to deal with abusive patients.	236	14.3%	20.2%	23.1%	41.6%	2.92	1.095	-.523 -1.107
42. Not enough time to respond to the needs of patients' families.	236	17.6%	25.2%	27.7%	28.6%	2.68	1.075	-.200 -1.107
43. Being held accountable for things over which I have no control.	238	10.9%	18.5%	21.8%	48.7%	3.08	1.052	-.739 -.803
44. Physician(s) not being present when a patient dies.	238	29.4%	15.5%	13.9%	41.2%	2.67	1.280	-.209 -1.658
45. Having to organize doctors' work.	237	18.5%	21.8%	16.8%	42.4%	2.84	1.169	-.382 -1.386
46. Lack of support from other health care administrators.	236	16.8%	20.6%	20.6%	41.2%	2.87	1.135	-.443 -1.262
47. Difficulty in working with nurses of the opposite sex.	238	52.1%	23.5%	11.3%	13%	1.85	1.067	.948 -.464

Statements	# of Responses	Never Stressful or does not apply	Occasionally stressful	Frequently stressful	Extremely stressful	μ	SD	Skewness Kurtosis
48. Demands of patient classification system.	237	32.4%	31.1%	14.7%	21.4%	2.25	1.129	.397 -1.230
49. Having to deal with the abuse from patients' families.	237	8.8%	29.4%	23.1%	38.2%	2.91	1.015	-.336 -1.170
50. Watching a patient suffer.	237	5.5%	22.7%	29.8%	41.6%	3.08	.929	-.577 -.771
51. Criticism from nursing administration.	237	11.3%	24.4%	20.2%	43.7%	2.67	1.069	-.499 -1.132
52. Having to work through breaks.	235	11.8%	19.7%	19.7%	47.5%	3.043	1.077	-.664 -.963
53. Not knowing whether patients' families will report you for inadequate care.	237	31.9%	25.6%	18.1%	23.9%	2.34	1.163	.234 -1.409
54. Having to make decisions under pressure.	238	9.2%	25.6%	24.8%	40.3%	2.96	1.016	-.459 -1.049

Table 6: Participants' Perceptions of the Preceptorship Experience Scale

Statements	N	Extremely Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Extremely Agree	μ	SD	Skewness Kurtosis
1. My preceptor provided me with feedback about my strengths.	238	11.8%	12.6%	13.4%	38.7%	23.5%	3.50	1.298	-.656 -.706
2. My preceptor helped me to determine appropriate patient priorities.	238	10.1%	13.0%	13.9%	39.1%	23.9%	3.54	1.265	-.679 -.610
3. My preceptor demonstrated how to problem solve ethical concerns.	238	10.9%	18.5%	16%	37%	17.6%	3.32	1.266	-.419 -.948
4. My preceptor provided me with the information I needed to care for my patients.	238	7.1%	11.3%	9.2%	48.7%	23.5%	3.70	1.158	-.960 .084
5. My preceptor encouraged me to use evidence-based practice.	238	17.6%	10.5%	12.6%	39.1%	20.2%	3.34	1.380	-.564 -.987
6. My preceptor kept other nursing staff aware of what I could do.	238	11.3%	12.2%	12.6%	42%	21.8%	3.51	1.272	-.714 -.585
7. My preceptor provided me with feedback about what I needed to improve.	238	10.9%	16.8%	10.9%	41.2%	20.2%	3.43	1.283	-.577 -.844
8. My preceptor encouraged me to engage in self-reflection.	238	23.5%	14.7%	16.8%	29.8%	15.1%	2.98	1.414	-.151 -1.339
9. My preceptor helped me to learn from errors or near misses (potential errors).	237	11.8%	12.6%	16%	35.3%	23.9%	3.47	1.304	-.593 -.772
10. My preceptor allowed me the independence that I needed.	238	14.3%	13.9%	16.8%	33.2%	21.8%	3.34	1.343	-.460 -.991
11. My preceptor considered my learning style (my preference for	238	15.1%	16.4%	20.6%	28.2%	19.7%	3.21	1.343	-.273 -1.108

Statements	N	Extremely Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Extremely Agree	μ	SD	Skewness Kurtosis
learning by observing, reading, experiencing, or reflecting).									
12. My preceptor taught me to ask questions (such as What if? or What could these symptoms mean?) as a way to develop my clinical reasoning skills.	237	14.3%	13.4%	15.1%	39.5%	17.2%	3.32	1.305	-.532 -.893
13. My preceptor helped me to interpret clinical situations.	238	12.2%	15.1%	18.5%	36.6%	17.6%	3.32	1.270	-.465 -.864
14. My preceptor demonstrated ways to help patients become partners in their care.	238	11.8%	14.3%	19.3%	38.2%	16.4%	3.33	1.244	-.506 -.770
15. My preceptor taught me how to use information technology for patient care.	236	13.4%	12.6%	18.1%	33.2%	21.8%	3.38	1.323	-.499 -.898
16. My preceptor was instrumental in helping me to establish relationships with people on the interdisciplinary team.	238	13%	16%	19.7%	34%	17.2%	3.26	1.283	-.385 -.951
17. My preceptor explained institutional policies to me.	238	5.9%	9.2%	14.7%	47.9%	22.3%	3.71	1.092	-.942 .324
18. My preceptor celebrated my successes with me.	238	18.5%	13.9%	21.8%	26.5%	19.3%	3.14	1.380	-.240 -1.169
19. The continuity of my learning experience was ensured even when I did not work with my primary preceptor.	238	6.3%	8.4%	18.5%	38.7%	28.2%	3.74	1.143	-.842 .027

Statements	N	Extremely Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Extremely Agree	μ	SD	Skewness Kurtosis
20. My preceptor's patient assignment was adjusted to give us time to work together during the shift.	237	10.5%	18.5%	24.8%	29%	16.8%	3.23	1.235	-.246 -.918
21. My preceptor explained the roles of the people who work on my unit.	238	6.7%	9.7%	17.6%	42.4%	23.5%	3.66	1.138	-.817 -.023
22. My preceptor and I had time to discuss what was expected of me.	238	12.2%	20.2%	16%	35.3%	16.4%	3.24	1.284	-.327 -1.060
23. There was a supportive environment for the preceptor experience in the practice setting.	238	11.8%	18.1%	20.2%	34%	16%	3.24	1.256	-.341 -.950

Table 7: Participants' Perceptions of Halfer-Graf Job/Work Environment Nursing Satisfaction Survey

Statements	N	Strongly disagree	disagree	Agree	Strongly Agree	μ	SD	Skewness Kurtosis
I feel comfortable that I have knowledge and skills to:								
1. Perform my job	238	1.7%	8.4%	50.8%	39.1%	3.27	.685	-.728 .614
2. Identify resources for work	238	2.1%	10.1%	56.7%	31.1%	3.17	.685	-.625 .705
3. Understand leadership expectations for my performance	238	2.9%	15.5%	49.2%	32.4%	3.11	.766	-.526 .013
4. Develop effective working relationships with unit staff	238	2.5%	9.7%	55%	32.8%	3.18	.703	-.709 .776
5. Get work tasks accomplished	238	.4%	8.4%	57.1%	34%	3.25	.618	-.322 -.048
6. Manage the demands of the job	238	.8%	10.9%	60.9%	27.3%	3.15	.629	-.327 .328
I feel:								
7. Accepted by my co-workers as a member of the team	237	.4%	11.3%	50%	37.8%	3.26	.668	-.435 -.389
8. Accepted by other disciplines as a member of the team	236	.8%	11.3%	54.2%	32.8%	3.20	.664	-.435 -.389
9. Mistakes are treated as learning opportunities	238	9.7%	19.3%	46.2%	24.8%	2.86	.901	-.525 -.408
10. Supported by the leadership team.	237	7.1%	24.4%	51.3%	16.8%	2.78	.809	-.401 -.191
11. My professional contributions are valued by my team members.	236	6.7%	22.7%	48.7%	21%	2.85	.832	-.424 -.277
12. My input is used to address unit issues and improve patient care	235	7.6%	21.8%	47.9%	21.4%	2.84	.850	-.450 -.310

Statements	N	Strongly disagree	disagree	Agree	Strongly Agree	μ	SD	Skewness Kurtosis
13. Physicians approach me in a respectful manner	238	1.3%	11.3%	55.5%	31.9%	3.18	.673	-.483 .232
14. I have access to resources to get my questions answered	236	4.2%	18.1%	58.4%	18.5%	2.92	.731	-.534 .429
15. Staffing schedules are managed fairly	237	13.4%	23.9%	45.8%	16.4%	2.65	.910	-.346 -.638
16. Comfortable asking questions about things I do not know	237	6.7%	14.7%	55%	23.1%	2.95	.806	-.690 .321
17. The length of my orientation was adequate	237	16%	25.2%	45.4%	13%	2.56	.912	-.288 -.733
18. My orientation influenced my decision to remain on my unit	236	10.9%	24.8%	48.3%	15.1%	2.68	.863	-.376 -.440
Individually focused questions:								
19. I have the information I need to be able to perform my job	237	2.1%	12.6%	63%	21.8%	3.05	.655	-.507 .899
20. I am aware of professional opportunities to do my job	237	3.4%	16%	61.3%	18.9%	2.96	.697	-.554 .706
21. I have been able to participate in the professional development programs that are of interest to me	236	8%	27.3%	48.7%	15.1%	2.72	.820	-.320 -.330
22. I am satisfied with the scheduled days and hours that I work	238	15.5%	26.9%	40.8%	16.8%	2.59	.945	-.211 -.842
23. I am satisfied with my job	238	5%	21%	47.9%	26.1%	2.95	.820	-.462 -.269
24. I plan to remain on my unit of hire after 18 months	236	16.8%	23.9%	42.4%	16%	2.58	.953	-.262 -.851

Table 8: Participants' Perceptions of the Role Conflict and Ambiguity Scale

Statements	N	Very False	Somewhat False	False	Neutral	True	Somewhat True	Very True	μ	SD	Skewness Kurtosis
2. I feel certain about how much authority I have.	238	9.2%	20.6%	26.5%	19.3%	9.2%	8.4%	6.7%	3.51	1.650	.516 -.478
3. I have clear, planned goals and objectives for my job.	238	14.3%	23.1%	34.5%	15.5%	3.4%	4.6%	4.6%	3.03	1.502	.914 .686
4. I have to do things that should be done differently.	238	1.7%	3.4%	5.5%	28.6%	33.2%	20.2%	7.6%	4.79	1.242	-.488 .605
6. I know that I have divided my time properly.	237	9.2%	19.3%	35.3%	23.9%	5%	4.6%	2.1%	3.19	1.318	.594 .560
7. I receive an assignment without the manpower to complete it.	238	2.9%	2.5%	10.5%	20.2%	26.5%	16.8%	20.6%	4.97	1.523	-.463 -.217
8. I know what my responsibilities are.	237	19.3%	18.1%	42.9%	13%	2.9%	2.9%	.4%	2.73	1.213	.526 .633
9. I have to buck a rule or policy in order to carry out an assignment.	238	7.1%	4.2%	12.2%	28.6%	19.7%	23.1%	5%	4.39	1.538	-.501 -.243
11. I work with two or more groups who operate quite differently.	236	2.5%	2.9%	13%	26.9%	30.7%	14.3%	8.8%	4.60	1.348	-.267 .094
12. I know exactly what is expected of me.	238	12.2%	19.7%	38.2%	20.6%	3.8%	2.9%	2.5%	3.03	1.310	.717 1.016
13. I receive incompatible requests from two or more people.	238	2.1%	4.2%	12.6%	22.3%	29%	16.4%	13.4%	4.75	1.445	-.296 -.286
14. I do things that are apt to be accepted by one	237	2.5%	2.5%	11.8%	26.1%	30.7%	14.7%	11.3%	4.70	1.374	-.287 .067

Statements	N	Very False	Somewhat False	False	Neutral	True	Somewhat True	Very True	μ	SD	Skewness Kurtosis
person and not accepted by others.											
15. I receive an assignment without adequate resources and materials to complete it.	237	2.1%	1.7%	14.3%	20.6%	27.7%	13.4%	19.7%	4.90	1.483	-.249 -.450
16. Explanation is clear of what has to be done.	237	5%	16.8%	31.5%	22.7%	10.9%	10.1%	2.5%	3.58	1.423	.411 -.345
17. I work on unnecessary things.	238	8.8%	3.8%	19.3%	28.6%	18.1%	14.3%	7.1%	4.15	1.588	-.186 -.399

Table 9: Participants' Perceptions of the Turnover Intention Scale

Statements	N	Extremely Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Extremely Agree	μ	SD	Skewness Kurtosis
1. I often think of leaving the organization.	238	9.7%	11.3%	17.6%	25.6%	35.7%	3.66	1.323	-.673 -.718
2. It is very possible that I will look for a new job next year.	238	12.6%	10.9%	18.1%	26.5%	31.9%	3.54	1.367	-.588 -.872
3. If I could choose again, I would choose to work for the current organization.	238	16%	23.9%	22.7%	17.2%	20.2%	3.02	1.366	.070 -1.208

Table 10: Relationships between Nursing Characteristics and the Study Variables

Variable	Test	Turnover Intention	Stress	Preceptor	Satisfaction	RoleCA
Age	Pearson correlation	r= -.025, p= .703	r= .011, p= .864	r= -.040, p= .547	r= -.013, p= .844	r= -.007, p= .916
Gender	Independent-samples t-test	t(244)= 1.385, p= .167	t(224)= .003, p= .998	t(71.356)= 1.001, p= .320	t(69.722)= -.046, p= .964	t(224)= .544, p= .587
Marital Status	Independent-samples t-test	t(223)= -1.679, p= .094	t(223)= .200, p= .842	t(223)= .670, p= .503	t(223)= 1.552, p= .122	t(223)= .380, p= .702
Salary	Independent-samples t-test	t(226)= -1.286, p= .200	t(226)= .520, p= .604	t(226)= .258, p= .797	t(226)= .222, p= .824	t(226)= -.481, p= .631
Area of Practice	Independent-samples t-test	t(235)= -.632, p= .528	t(253)= -1.953, p= .052	t(253)= -.836, p= .404	t(253)= -.166, p= .868	t(219.595)= .893, p= .373
Hospital	Independent-samples t-test	t(236)= -1.845, p= .066	t(236)= -.690, p= .491	t(236)= 1.610, p= .109	t(236)= -.221, p= .826	t(236)= -1.173, p= .242
Work per Hour	Independent-samples t-test	t(228)= -1.628, p= .105	t(228)= -1.469, p= .143	t(215.21)= 1.468, p= .144	t(228)= -2.171, p= .031	t(228)= -.229, p= .819
Educational Level	One-Way ANOVA	F(2,226)= 2.457, p= .088	F(2,226)= .155, p= .856	F(2,226)= 1.330, p= .267	F(2,226)= 1.354, p= .260	F(2,226)= .159, p= .853
Graduation Date	Pearson correlation	r= -.046, p= .534	r= .004, p= .956	r= -.013, p= .866	r= .055, p= .461	r= -.096, p= .196
College	One-Way ANOVA	F(2,170)= 1.419, p= .245	F(2,170)= .380, p= .685	F(2,170)= 1.818, p= .165	F(2,170)= .985, p= .375	F(2,170)= .980, p= .377
Parental Status	Independent-samples t-test	t(232)= 1.838, p= .067	t(232)= .075, p= .940	t(232)= -1.215, p= .226	t(232)= -.715, p= .475	t(232)= -.138, p= .890
Number of Nurses who have Children in each Group	One-Way ANOVA	F(2,70)= .068, p= .934	F(2,70)= 1.114, p= .334	F(2,70)= 2.571, p= .084	F(2,70)= 2.321, p= .106	F(2,70)= 1.446, p= .243
Total Number of Children per Parson	Pearson correlation	r= -.134, p= .257	r= .030, p= .804	r= -.151, p= .203	r= -.041, p= .730	r= -.035, p= .770
Assistant with Child Care	Independent-samples t-test	t(72)= .436, p= .664	t(72)= -.102, p= .919	t(72)= .033, p= .974	t(72)= -.374, p= .710	t(72)= .484, p= .630
Providing Care for Dependents	Independent-samples t-test	t(227)= -.007, p= .994	t(227)= -.469, p= .639	t(227)= 1.361, p= .175	t(227)= -.224, p= .823	t(227)= -.674, p= .501

Variable	Test	Turnover Intention	Stress	Preceptor	Satisfaction	RoleCA
Number of Dependents	Pearson correlation	r= -.051, p= .767	r= -.162, p= .346	r= .028, p= .870	r= .104, p= .544	r= -.184, p= .284
Assistant with Dependent Care	Independent-samples t-test	t(35)= .254, p= .801	t(35)= .908, p= .370	t(35)= .397, p= .694	t(35)= 1.021, p= .314	t(35)= .227, p= .822
Assistant with Housework	Independent-samples t-test	t(227)= -1.333, p= .184	t(227)= -.965, p= .335	t(226.89)= 1.838, p= .067	t(227)= .603, p= .547	t(227)= -2.259, p= .025
Experience in the Current Position	Pearson correlation	r= .040, p= .576	r= -.001, p= .986	r= .004, p= .952	r= -.071, p= .316	r= .019, p= .786
Length of Preceptorship Experience in the Current Position	Pearson correlation	r= .064, p= .389	r= .081, p= .277	r= .004, p= .957	r= -.084, p= .257	r= .075, p= .312
Number of Preceptors in the Current Position	Pearson correlation	r= .001, p= .989	r= .070, p= .347	r= -.117, p= .113	r= -.119, p= .109	r= .037, p= .617
Previous Experience	Independent-samples t-test	t(229)= .005, p= .996	t(229)= -.172, p= .883	t(229)= .998, p= .319	t(229)= .906, p= .365	t(229)= -2.423, p= .016
Length of Previous Experience	Pearson correlation	r= .069, p= .621	r= .061, p= .659	r= .127, p= .359	r= -.004, p= .977	r= .002, p= .986
Total Years of Experience	Pearson correlation	r= .045, p= .503	r= -.009, p= .899	r= .045, p= .531	r= -.099, p= .164	r= .002, p= .973
Role in the Previous Experience	Independent-samples t-test	t(49)= -.114, p= .910	t(49)= -.472, p= .639	t(49)= -.524, p= .603	t(49)= -.873, p= .387	t(49)= -.375, p= .709
Length of Preceptorship Experience in the Previous Position	Pearson correlation	r= .070, p= .634	r= .023, p= .878	r= -.112, p= .449	r= -.184, p= .211	r= .120, p= .416
Number of Preceptors in the Previous Position	Pearson correlation	r= .107, p= .491	r= .210, p= .171	r= -.103, p= .507	r= -.119, p= .443	r= .190, p= .218

Table 11: Summary of the Hierarchical Multiple Regression Analysis to Predict the Turnover Intention

Model and Predictor Variables	Model Summary			ANOVA			Coefficients		
	R ²	Adjusted R ²	Δ R ²	df	F	p	β	t	p
Model 1 Working hours, Housework Assistant, Previous experience	.020	.007	.020	(3,224)	1.551	.202	.115 .091 .003	1.728 1.366 .045	.085 .173 .694
Model 2 Working hours, Housework Assistant, Previous experience, Job Stress, Preceptorship Experience	.106	.086	.086	(5,222)	5.284	.000	.073 .050 -.013 .174 -.218	1.141 .776 -.210 2.700 -3.354	.255 .438 .834 .007 .001
Model 3 Working hours, Housework Assistant, Previous experience, Job Stress, Preceptorship Experience, Work Satisfaction, Role Conflict and Ambiguity	.195	.169	.089	(7,220)	7.615	.001	.069 .034 -.052 .092 -.005 -.190 .275	1.111 .550 -.842 1.430 -.061 -2.530 3.787	.268 .583 .400 .154 .952 .012 .000

Dependent Variable: Turnover Intention

Figure 4. Andargeery, S. (2019). The Conceptual Framework of Results of the Research Study entitled the Factors Associated with Turnover Intention among Saudi Newly Graduate Nurses Modified from the Determinants of Hospital Nurse Intention to Remain Employed Model.

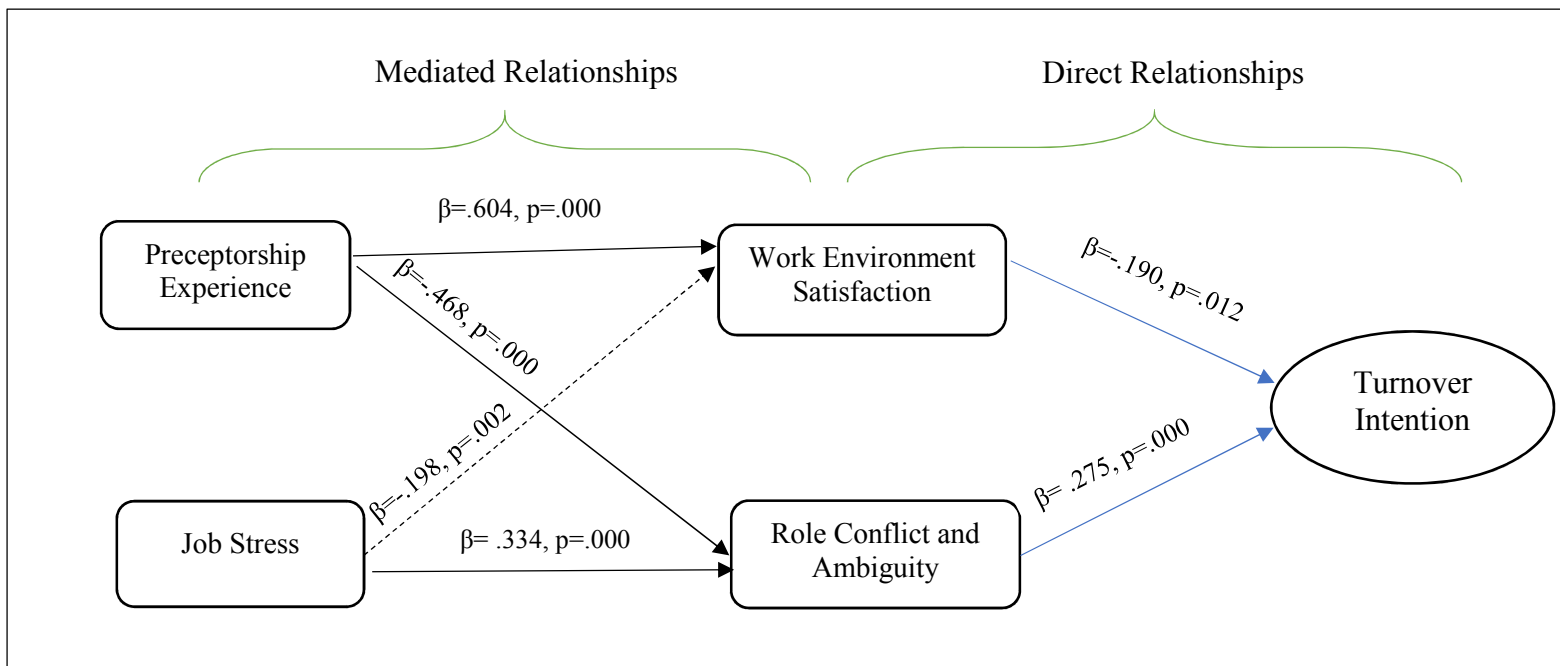


Table 12: Hierarchical Multiple Regression Analysis to Test the Mediation Effect of the Role Conflict and Ambiguity between Job Stress and Turnover Intention

Steps and Predictor Variables	Model Summary			ANOVA			Coefficients				
	R ²	Adjusted R ²	Δ R ²	df	F	p	b	SE	β	t	p
Step 1 Job Stress DV: TI	.038	.033	.038	(1,236)	9.206	.003	.022	.007	.194	3.034	.003
Step 2 Job Stress DV: RoleCA	.112	.108	.112	(1,236)	29.732	.000	.096	.018	.334	5.453	.000
Step 3 Job Stress RoleCA DV: TI	.152	.145	.115	(2,235)	21.070	.000	.008 .139	.007 .025	.074 .359	1.156 5.633	.249 .000

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Figure 5: Unmediated and Mediated Relationships of the Role conflict and Ambiguity between Job Stress and Turnover Intention

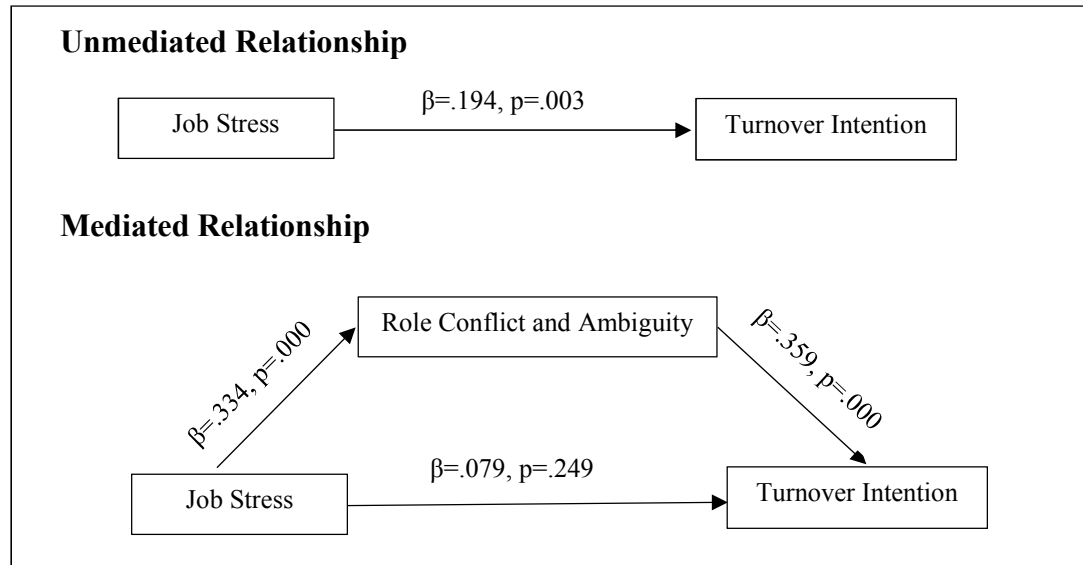


Table 13: Hierarchical Multiple Regression Analysis to Test the Mediation Effect of the Role Conflict and Ambiguity between Preceptorship Experience and Turnover Intention

Steps and Predictor Variables	Model Summary			ANOVA			Coefficients				
	R ²	Adjusted R ²	Δ R ²	df	F	p	b	SE	β	t	p
Step 1 Preceptorship Experience DV: TI	.076	.072	.076	(1,236)	19.388	.000	-.039	.009	-.276	-4.403	.000
Step 2 Preceptorship Experience DV: RoleCA	.219	.216	.219	(1,236)	66.232	.000	-.170	.021	-.468	-8.138	.000
Step 3 Preceptorship Experience RoleCA DV: TI	.159	.152	.083	(2,235)	22.217	.000	-.017 .127	.010 .026	-.123 .326	-1.814 4.819	.071 .000

Figure 6: Unmediated and Mediated Relationships of the Role conflict and Ambiguity between Preceptorship Experience and Turnover Intention

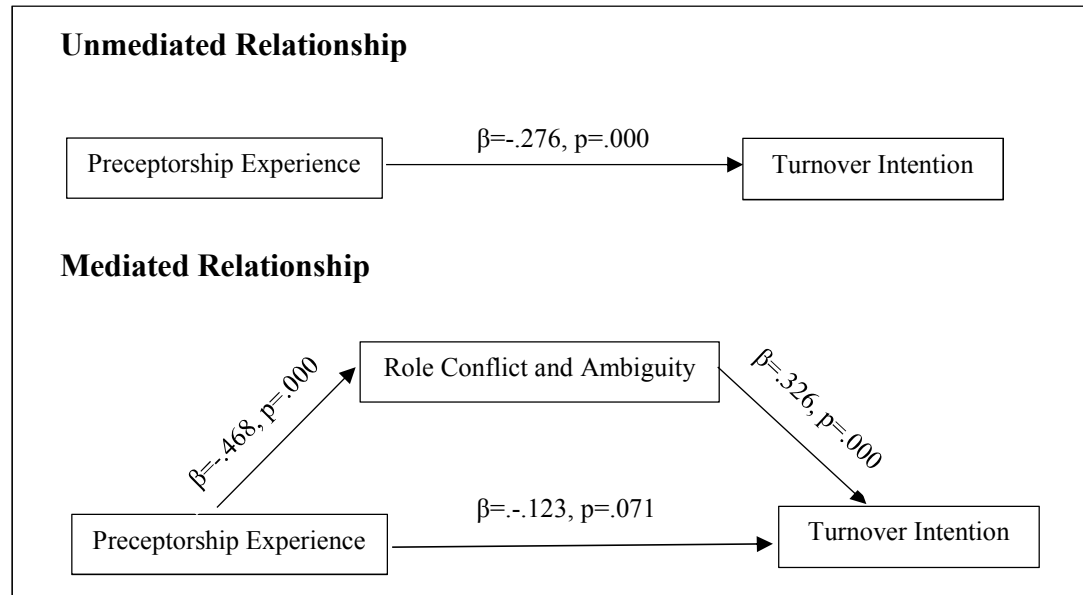


Table 14: Hierarchical Multiple Regression Analysis to Test the Mediation Effect of the Work Environment Satisfaction between Job Stress and Turnover Intention

Steps and Predictor Variables	Model Summary			ANOVA			Coefficients				
	R ²	Adjusted R ²	Δ R ²	df	F	p	b	SE	β	t	p
Step 1 Job Stress DV: TI	.038	.033	.038	(1,236)	9.206	.003	.022	.007	.194	3.034	.003
Step 2 Job Stress DV: Work Satisfaction	.039	.035	.039	(1,236)	9.612	.002	-.078	.025	-.198	-3.100	.002
Step 3 Job Stress Work Satisfaction DV: TI	.120	.113	.083	(2,235)	16.080	.000	.015 -.083	.007 .018	.136 -.294	2.174 -4.704	.031 .000

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Figure 7: Unmediated and Mediated Relationships of the Work Environment Satisfaction between Job Stress and Turnover Intention

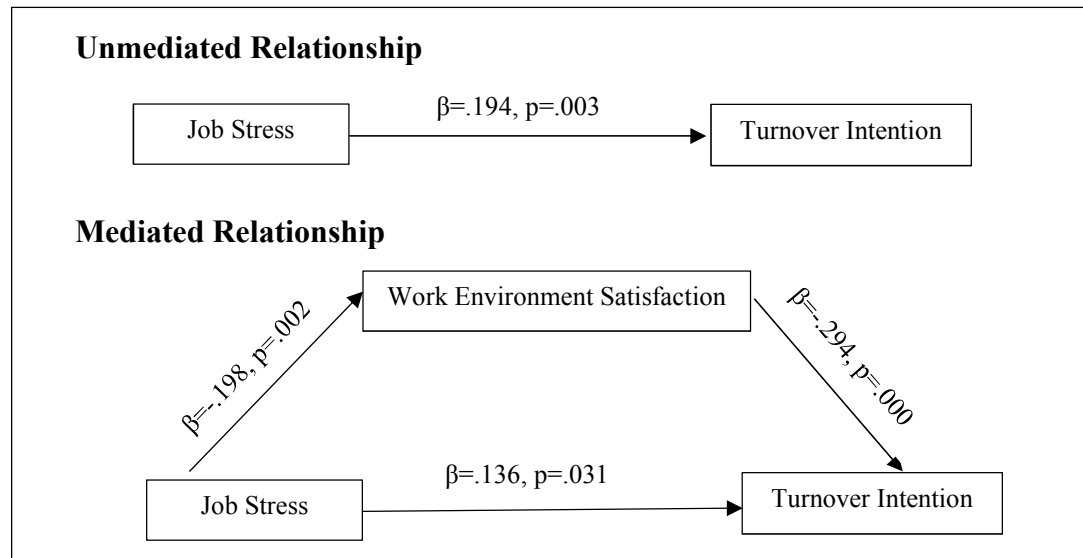
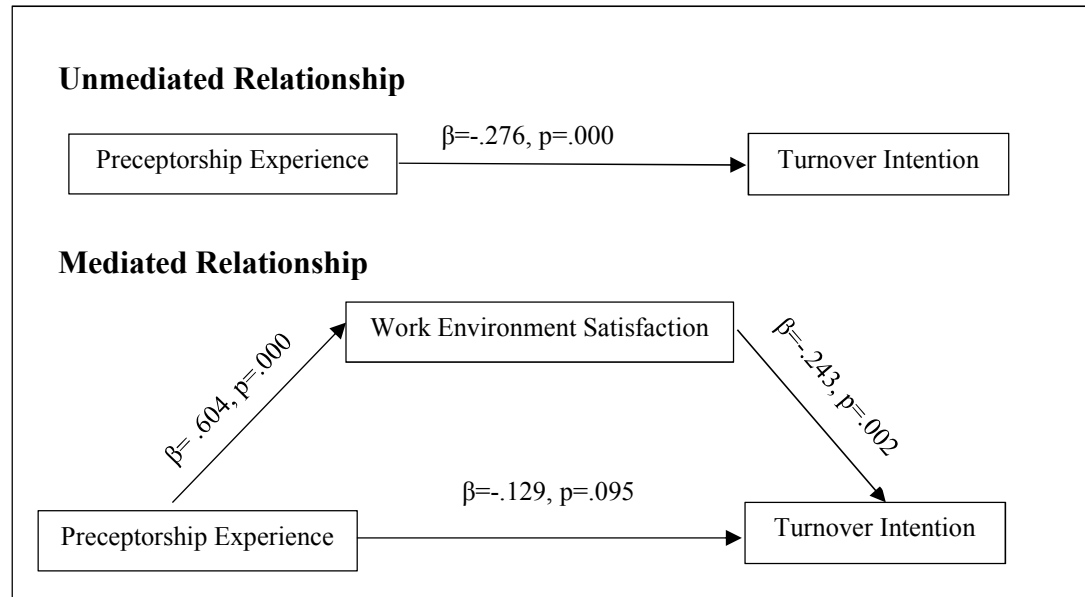


Table 15: Hierarchical Multiple Regression Analysis to Test the Mediation Effect of the Work Environment Satisfaction between Preceptorship Experience and Turnover Intention

Steps and Predictor Variables	Model Summary			ANOVA			Coefficients				
	R ²	Adjusted R ²	Δ R ²	df	F	p	b	SE	β	t	p
Step 1 Preceptorship Experience DV: TI	.076	.072	.076	(1,236)	19.388	.000	-.039	.009	-.276	-4.403	.000
Step 2 Preceptorship Experience DV: Work Satisfaction	.365	.362	.365	(1,236)	135.548	.000	.301	.026	.604	11.643	.000
Step 3 Preceptorship Experience Work Satisfaction DV: TI	.113	.106	.037	(2,235)	15.009	.000	-.018 -.069	.011 .022	-.129 -.243	-1.674 -3.146	.095 .002

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Figure 8: Unmediated and Mediated Relationships of the Work Environment Satisfaction between Preceptorship Experience and Turnover Intention



CURRICULUM VITAE

Shaherah Andargeery, MSN-RN

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Education

Doctor of Philosophy in science of nursing | 2014-2019 | university of wisconsin-MILWAUKEE

- Major: Nursing
- Expected graduation: May 2019

Master of SCIENCE in nursing | 2012-2014 | ROBERTS WESLEYAN COLLEGE

- Major: Nursing Leadership and Administration

INTENSIVE ENGLISH PROGRAM | 2010-2012 | UNIVERSITY OF MIAMI

- Level 2, 3, 4 and 5

BACHELOR OF APPLIED MEDICAL SCIENCE IN NURSING | 2003-2008 | KING ABDULAZIZ UNIVERSITY

- Major: Nursing

Experience

Research assistant: Institute for Urban health partnership (iuhp) primary care behavioral health (pcbh) project | October 2017-Current

- Assisting in collecting, cleaning and managing the data, and analyzing the data. The expectation is also to disseminate the data through oral and poster presentations and publish the result.

Internship Training | Highland hospital | January 2014-April 2014

- Worked with the Nurse Managers of the Emergency Department, Emergency Observation Unit, and Intensive Care Unit.
- Shadowed the CEO Nurse and Nurse Directors at the Hospital.

Internship Training | King Fahad Armed Forces Hospital | October 2008- sptember 2009

- Worked as a staff nurse in the Medical Ward (8 weeks), Surgical Ward (8 weeks), OB/GYNE (8 weeks), Pediatric Ward (8 weeks), ER (4 weeks), Intensive Care Unit (4 weeks), and Elective: Cardiac Intensive Care Unit and Dialysis (7 weeks)

Skills:

- Attended the Basics of the OMAHA System. April 2018
- Attended Microsoft Excel workshop- Advanced Level. (April 2018)
- Attended Microsoft Excel workshop- Intermediate Level. (April 2018)
- Statistical knowledge, especially about ANOVA, regression analysis, and Chi-square, and the statistical software SPSS.

- Knowledgeable about several bibliographic databases including Medeley, EndNote, RefWorks, and Zotero.
- Proficient knowledge about Google documents and Microsoft Office such as Microsoft Word, PowerPoint, and Excel.
- Knowledgeable about different software such as Skype, Dropbox
- Knowledgeable about the use of the current technology and the use of the modern office machine including laser jet, inkjet, desk jet printers, copy/duplication machines.
- Proficient knowledge about Scantron and Qualtrics Survey Software.

Recognitions:

- Recipient of the National Society of Academic Excellence. April 2019.
- Recipient of the 2018 Harriet H. Werley Doctoral Student Nursing Research Award. November 2018.
- Received a Doctoral Student Poster Award. April 2018.
- Received an Honorable Mention Award from Sigma Theta Tau, University of Wisconsin-Milwaukee. April 2018.
- Received a certification of appreciation for participating in the Eta Nu Chapter 3rd Annual Poster Symposium. November 2017.
- Selected as the graduate representative on the CON Research Committee for the PhD program, University of Wisconsin-Milwaukee. October 2017
- Received a Graduate Student Research Grant from Sigma Theta Tau, University of Wisconsin-Milwaukee. April 2017.
- Received a Doctoral Student Poster Award. April 2017.
- Received an Outstanding PhD Student Performance Award. December 2016.
- Received a first place of PhD student poster award at Eta Nu 2nd Annual Student Poster Symposium. December 2016.
- Received a second place of DNP student poster award at Eta Nu 2nd Annual Student Poster Symposium. December 2016.
- Received a first place of BSN student poster award at Eta Nu 2nd Annual Student Poster Symposium. December 2016.
- Received a 2016 Doctoral Student Poster Award for Building Bridges Conference. May 2016.
- Member of Sigma Theta Tau International, Eta Nu Chapter, University of Wisconsin-Milwaukee. December 2015-current.
- Member of Golden Key International Honor Society. February 2015-current.
- Member of Midwest Nursing Research Society (MNRS). April 2015-current.
- Member of Sigma Theta Tau International, Tau Xi Chapter, Roberts Wesleyan College, March 2014-Current.
- An honor of King Abdullah Scholarship from the Ministry of Higher Education. December 2009.

Scientific Research, Projects, and Posters:

- Steps to Success: Meeting the Challenges through Implementing an Evidence-Based Health Coaching Program to Enhance Diabetes Self-Management. May 2014.
- Charge Nurse Scope of Clinical Practice at Highland Hospital. April 2014.
- Should we Legalized the Sale of Human Organs. August 2011.
- The Relationship Between the Computer Using Habits and Related Health Problems among Female Medical Students. April 2008.
- The posters that I developed with the contribution of the team members are:
 - An Evolutionary Concept Analysis of Preceptorship in Clinical Nurse Practice. **Shaherah Andargeery, MSN-RN**

- Refereed poster presentation at:
 - Eta Nu Chapter of STTI 3rd Annual Poster Symposium at University of Wisconsin Milwaukee, Milwaukee, WI (2017).
- Thai Students Health and Wellness Needs: Nursing Major versus Non-Nursing Majors. **Shaherah Andargeery, MSN, RN**; Julia Snethen, PhD, RN (PI), Wirunpat Sakunsuntiporn, PhD, RN, Laura Swoboda, BSN, RN, CWOCN; Chayannan Jaide, MS, RN; Sheryl T. Kelber, MS.
 - Refereed poster presentation at:
 - Eta Nu Chapter 2nd Poster Symposium at University of Wisconsin Milwaukee, Milwaukee, WI (2017).
 - Midwest Nursing Research Society, Minneapolis, MN (2017).
 - Building Bridges Nursing Conference in Milwaukee, WI (2017).
- Thai Faculty and Staff Perceptions of the Health Needs of Undergraduate Students. Laura Swoboda, BSN, RN, CWOCN; **Shaherah Andargeery, MSN, RN**; Julia Snethen, PhD, RN (PI), Wirunpat Sakunsuntiporn, PhD, RN; Chayannan Jaide, MSN, RN, Sheryl T. Kelber, MS.
 - Refereed poster presentation at:
 - Eta Nu Chapter 2nd Poster Symposium at University of Wisconsin Milwaukee, Milwaukee, WI (2017).
 - Midwest Nursing Research Society, Minneapolis, MN (2017).
 - Building Bridges Nursing Conference in Milwaukee, WI (2017).
- Thai Fathers Perception of their Family Health and Wellness Needs. Moudi Albargawi, MSN, RN; Julia Snethen, PhD, RN (PI); Pamela Treisman, MN, RN, CNL; **Shaherah Andargeery, MSN, RN**; Sheryl Kelber, MS. Refereed poster presentation at Eta Nu Chapter 2nd Poster Symposium at University of Wisconsin Milwaukee, Milwaukee, WI.
 - Refereed poster presentation at:
 - Eta Nu Chapter 2nd Poster Symposium at University of Wisconsin Milwaukee, Milwaukee, WI (2017).
 - The Children’s Hospital of Wisconsin, Pediatric Nursing Conference in Brookfield, WI (2017).
 - Midwest Nursing Research Society, Minneapolis, MN (2017).
 - Building Bridges Nursing Conference in Milwaukee, WI (2017).
- Family Health and Wellness: Thai Mothers Perceptions. Pamela Treisman, MN, RN; Moudi Albargawi, MSN, RN; Julia A. Snethen, PhD, RN (PI); **Shaherah Andargeery, MSN, RN**; Sheryl Kelber, MS.
 - Refereed poster presentation at:
 - Eta Nu Chapter 2nd Poster Symposium at University of Wisconsin Milwaukee, Milwaukee, WI (2017).
 - The Children’s Hospital of Wisconsin, Pediatric Nursing Conference in Brookfield, WI (2017).
 - Midwest Nursing Research Society, Minneapolis, MN (2017).
 - Referred oral presentation at:
 - Building Bridges Nursing Conference in Milwaukee, WI (2017).
- Thai Student Nurses in the Clinical Major: Perceptions of Children who are Overweight. Danielle Henckel; **Shaherah Andargeery, MSN, RN**; Moudi Albargawi, MSN, RN; Julia Snethen, PhD, RN (PI), Winruprat Sakunsuntiporn, PhD, RN; Sheryl Kelber, MS.
 - Refereed poster presentation at:
 - Eta Nu Chapter 2nd Poster Symposium at University of Wisconsin Milwaukee, Milwaukee, WI (2017).

- The Children’s Hospital of Wisconsin, Pediatric Nursing Conference in Brookfield, WI (2016).
- Midwest Nursing Research Society, Minneapolis, MN (2016).
- Building Bridges Nursing Conference in Milwaukee, WI (2016).
- Pre-Nursing Students Cross-Cultural Perceptions of Overweight Children. **Shaherah Andargeery, MSN, RN**; Moudi Albargawi, MSN, RN; Julia Snethen, PhD, RN (PI); Wirunpat Sakunsuntiporn, PhD, RN; Ruth Treisman, MS, APRN; Aaron Buseh, PhD, MPH, MSN; Sheryl Kelber, MS.
 - Refereed poster presentation at:
 - Building Bridges Nursing Conference in Milwaukee, WI (2016).
 - Eta Nu Chapter 1st Poster Symposium at University of Wisconsin Milwaukee, Milwaukee, WI (2016).
 - The Children’s Hospital of Wisconsin, Pediatric Nursing Conference in Brookfield, WI (2015).
- Student Nurses in the Nursing Major: Cross Cultural Perceptions of Overweight Children. Chayannan Jaide, MSN-RN, **Shaherah Andargeery, MSN-RN**, Moudi Albargawi MSN-RN, Julia Snethen (PI), Wirunpat Sakunsuntiporn, PhD-RN Ruth Treisman, Aaron Buseh, PhD & Sheryl Kelber, MS.
 - Refereed poster presentation at:
 - Building Bridges Nursing Conference in Milwaukee, WI (2016).
 - Eta Nu Chapter 1st Poster Symposium at University of Wisconsin Milwaukee, Milwaukee, WI (2016).
 - The Children’s Hospital of Wisconsin, Pediatric Nursing Conference in Brookfield, WI (2015).