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Job Satisfaction, Work Environment, Job Stress, and Professional Identity among Psychiatric Nurses

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This is to certify that the doctoral dissertation by

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Walden University
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Abstract

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by

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ADN, Gwinnett Technical College, 2011

MSN, Grand Canyon University, 2015

MSC, University of Ibadan, 1996

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

Job satisfaction is one of the most complex issues in the healthcare industry in regard to employees. To boost employees' productivity and job satisfaction, nurse leaders must satisfy their employees' needs by providing the right working conditions, reducing job stress, and promoting professional identity development. This quantitative, cross-sectional correlational study guided by Herzberg et al.'s two-factor theory investigated the relationship among work environment, job stress, professional identity, and job satisfaction among 105 registered nurses working in inpatient psychiatric hospitals in the United States. It was determined that the moderating effect of demographic factor (years of experience) on the extent to which work environment, job stress, and professional identity account for the variance of job satisfaction. A convenience sampling method was used to obtain the participants who completed four Internet-based surveys that measured the study variables. Data from the surveys were analyzed using multiple linear regression. Results indicated that the work environment, professional identity, and job stress had a significant joint predictive influence on job satisfaction, but only the work environment emerged as a significant positive independent predictor of job satisfaction. Years of experience did not significantly moderate the relationship between the predictor and outcome variables. It is important that hospitals develop policies to ensure a positive work environment for RNs to promote their job satisfaction and increase retention. A positive work environment for RNs in an inpatient psychiatric hospital will potentially increase nurses' retention rates, job satisfaction, and patient outcomes and decrease turnover costs.

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Dedication

This work is dedicated to my creator, to the deceased, and the living. To my husband, AY, I thank you for your support. To my children, Rafiat and Rafeek, I appreciate you for your constant prayers, encouragement, and understanding throughout this process. To my wonderful daughter, Nicole, your involvement in this work was fantastic. To my twin-sister, Toy Great, and her daughter, Michelle, thank you for your affection and help. To my stepson, Ibrahim, your intellectual support was remarkable. I hope my achievement would inspire you to fulfill your dreams. God bless you all.

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Chapter 1: Introduction to the Study

Psychiatric care facilities specialize in the prevention, treatment, and management of mental health issues among patients with mental illness (Ong et al., 2017). Nurses are the largest group of health care professionals who care for mental health care clients in the psychiatric services specialty (Joubert & Bhagwan, 2018). This duty places psychiatric nurses at a pivotal juncture of providing quality care while managing the challenges that arise with this patient population. Psychiatric nursing is a stressful specialty with low job satisfaction (Dawood et al., 2017). Job satisfaction has been a topic of universal interest as it affects the employees' job performance and, subsequently, the quality of hospital and healthcare services (Chien & Yick, 2016).

There are increasing concerns about job satisfaction among nurses due to the level of the job turnover rate and the demand for quality of services provided to patients (Lu, Zhao & While 2019). The nurse work environment impacts job satisfaction and turnover, which influences the organizational cost of replacing nurses (Al-Hamdan et al., 2017). A stable work environment promotes nurse satisfaction and retention (Zangaro & Jones, 2019). Researchers have shown professional identity to be the primary factor influencing nurse retention, job satisfaction, and work engagement; high professional identity reduces the risk of high turnover intention (Sabanciogullari & Dogan, 2015). Rapid changes in healthcare services have put more demands on nurses, which has reinforced the urgency for organizations to reconsider ways to sustain and improve nurses' job satisfaction (Al-Maqbali, 2015). There is a need to identify the factors that affect job satisfaction and dissatisfaction.

In this study, I examined the relationship between the work environment, job stress, professional identity, and job satisfaction among nurses working in inpatient psychiatric hospitals in the United States. I also determined the moderating effect of demographic factors (years of experience) on the extent to which the work environment, job stress, and professional identity account for the variance of job satisfaction. This chapter includes the central aspects of the study, introduction, and background of the study. The chapter also includes a discussion of the research problem, purpose, theoretical framework, the nature of the study, the research questions and hypotheses, and the significance of the study.

Background

As frontline staff who provide direct care to patients, psychiatric nurses are vital to the quality and safety of patients in hospitals. Psychiatric nurses maintain 24-hour monitoring and responsibility for mentally ill patients at a high risk of self-harm or harm others (Hanrahan, 2012). The severity of illness and rapid turnover of patients require skilled interventions from psychiatric nurses to keep psychiatric environments safe and therapeutic for patients and staff. In hard-working environments like psychiatric inpatient hospitals, nurses' job satisfaction is considered crucial (Skitsou et al., 2015). Job satisfaction is the extent to which an individual likes or dislikes their job (Masum et al., 2016). Factors that ensure job satisfaction are divided into two categories, intrinsic or motivators and extrinsic or hygiene factors (Herzberg et al., 1959, 2010). The motivators relate to individuals' perceptions about the nature of their job or their emotional needs, such as working conditions, skill development, and accomplishment (Herzberg et al., 1959, 2010; Kumar et al., 2013). The hygiene factors relate to individuals' feelings or

attitudes about aspects of the work situation external to the job tasks, such as salary and benefits (Herzberg et al., 1959, 2010; Kumar et al., 2013). Both motivators and hygiene factors influence job satisfaction among psychiatric nurses and impact their performance in the workplace (Edrak et al., 2013).

Professional identity is how nurses perceive their careers and abilities as nurses and it allows nurses to recognize their roles and responsibilities within an organization (Rasmussen et al., 2018). Professional identity and job association are positively correlated with nurses' job satisfaction among psychiatric nurses (Kabeel & Eisa, 2017). Like studies in other professions, nurses with low professional identity and low job satisfaction reported greater intention to leave the profession (Sabanciogullari & Dogan, 2015; Zhang, Meng, Yang & Liu, 2018).

The working environment is one of the most important factors influencing job satisfaction (Agbozo et al., 2017; Salunke, 2015). A healthy nurse's work environment is a safe workplace, empowering, and satisfying (We et al., 2018). Without a healthy environment in an organization, staff is not happy or satisfied (Salunke, 2015). I identified several studies that examined the nursing work environment, and the results revealed aspects within the environment, such as support from their manager and peers, having a diploma degree, or a manageable workload can affect nurses' satisfaction (Suliman, & Aljezawi, 2018). Healthy work environments, job satisfaction, and intent to stay were positively correlated, whereas a stressful work environment negatively impacts job satisfaction (AbuAlRub et al., 2016; Al-Hamdan et al., 2017; Salunke, 2015).

Job stress is an individual response to external stimuli in the environment (Deng et al., 2019). Job stress experienced by nurses has affected healthcare organizations in

terms of absenteeism, quality of care, and job satisfaction (Alsaraireh et al., 2014). Researchers identified a significant correlation between job stress and job satisfaction (Gadirzadeh et al., 2017; Choi, & Koh, 2015). Job stress was negatively correlated with job satisfaction among community health nurses (Ching et al., 2015; Tao et al., 2018).

The relationship between demographic variables such as age and years of experience have shown varying results based on location and sample (Baum & Kagan, 2015; Liu et al., 2015). In Shanghai, a study of 215 critical nurses from 12 general hospitals showed an inverse association between age and job satisfaction while another study of nurses in tertiary hospitals in China showed job satisfaction is associated with years of experience (Liu et al., 2015; Ouyang et al., 2015). In contrast, a study of 52 nurses in an Israeli psychiatric hospital revealed there was no significant relationship between job satisfaction and age (Baum & Kagan, 2015). Among midwives working in hospitals in Iran, years of experience significantly correlate with job satisfaction, and there was no significant relationship between job satisfaction and other demographic variables (Khavayet et al., 2018).

A significant body of global research shows the relationship between job satisfaction and specific social factors among psychiatric nurses (Al-Hamdan et al., 2017; Kabeel & Eisa, 2017; Zhang et al., 2018). Some of the social factors are work stress, work environment, intention to stay at work, professional identity, work engagement, turnover intention, burnout levels, and intention to leave the career. However, no study has investigated the cumulative effect of the work environment, job stress, and professional identity on job satisfaction (Kabeel & Eisa, 2017).

In this study, I addressed the above-specified gaps in the literature by examining the relationship between job satisfaction and cumulative effects of the work environment, job stress, and professional identity among psychiatric nurses. The results of this study have the potential for positive social change for nurses, patients, and healthcare organization. The results could be used by nurses and healthcare organizations to identify appropriate strategies to improve positive patient outcomes and policies to promote job satisfaction among psychiatric nurses.

Problem Statement

According to the Center for Behavioral Health Statistic and Quality (2015), about 56 million adults in the United States experience mental illness and substance use disorder annually. Despite the pressing need, the supply of skilled mental health professionals has not been able to keep up with rising demand adding a barrier to addressing these illnesses (American Psychiatric Nursing Association, [APNA], 2019). Registered Nurses (RNs) staffing psychiatric units represent the most significant professional workforce in psychiatric hospitals (Hanrahan, 2012).

According to the National Nursing Workforce Survey (NNWS), four percent of the total RN workforce is employed in mental health or substance abuse settings (Budden, Zhong, Moulton, & Cimiotti, 2013). The 2015 NNWS identified approximately 134,000 RNs working in mental health settings as their primary work setting (National Council of State Boards of Nursing, 2015). By national projections, the mental health workforce would be 250,000 professionals short of the demand by 2025 (APNA, 2019). As the demand for mental illness services continues to increase, there is a need to

increase psychiatric nurses in workforce planning for the benefit of persons needing care (Phoenix, 2019).

Many organizational and individual factors can cause nurses to leave the profession, but one of the most critical factors is job satisfaction (Chan et al., 2013). When employees are satisfied, they are motivated to become more productive, encouraged, and devoted to their work (Islam & Alam, 2015). When psychiatric nurses' needs are unmet at their workplace, they are likely to experience a variant level of job stress, which leads to job dissatisfaction (Hosseinabadi & Etemadinezhad, 2018).

Creating and maintaining a healthy work environment is vital for nurses' satisfaction, retention, patient safety, and quality care (Nantsupawat et al., 2017). Nurses' ability to attribute to a professional identity allows them to understand better their role within an organization, which promotes job satisfaction and work engagement (Rasmussen, 2015; Sabanciogullari & Dogan, 2015). Research examining the concept of job satisfaction of hospital nurses revealed that job satisfaction was closely related to the work environment (Agbozo et al., 2017; Al-Hamdan et al., 2017; Salunke, 2015; Zhang et al., 2018), job stress (Hoboubi et al., 2017; Tao et al., 2018), professional identity (Kabeel & Eisa, 2017), age (Atefi et al., 2015), and years of experience (Msuya, 2016).

Kabeel and Eisa (2017) examined the relationship between job satisfaction and professional identity among psychiatric nurses in Egypt. The researchers concluded that there is a significant correlation between job satisfaction and professional identity and recommended replication of the study in a large sample size. I did not find any studies examining the cumulative effects of job stress, professional identity, and work environment on job satisfaction in the literature. I addressed this gap in research. I also

examined the moderating effect of demographic factor (years of experience) in the relationship between the work environment, job stress, professional identity, and job satisfaction.

Purpose of the Study

The purpose of this nonexperimental, quantitative cross-sectional correlational study was to: (a) Examine the relationship among work environment, job stress, professional identity, and job satisfaction for nurses working in inpatient psychiatric hospitals in the United States; and (b) to determine the moderating effect of demographic factors (years of experience) on the extent to which work environment, job stress, and professional identity account for the variance of job satisfaction. The predictor variables for the research questions included work environment, job stress, and professional identity. The outcome variable was job satisfaction, and the moderating variables were the selected demographic factor (years of experience). I used multiple logistic regression to assess the effects of the three factors specified (work environment, job stress, and professional identity) on job satisfaction among psychiatric nurses.

Research Questions and Hypotheses

I used the following research questions and hypotheses to guide this study:

Research Question 1 (RQ1): To what extent did the work environment, job stress, and professional identity account for the variance of job satisfaction among psychiatric nurses?

Null Hypothesis ($H_0$1): None of the possible three predictor variables (work environment, job stress, and professional identity) would reliably predict job satisfaction among psychiatric nurses.

Alternative Hypothesis (H_a1): At least one of the possible three predictor variables (work environment, job stress, and professional identity) allows for the prediction of job satisfaction among psychiatric nurses.

Research Question 2 (RQ2): What was the moderating effect of demographic factors (years of experience) on the extent to which the work environment, job stress, and professional identity account for the variance of job satisfaction among psychiatric nurses?

Null Hypothesis ($H_0 2$): Demographic factor (years of experience) had no significant moderating effect on the relationship between work environment, job stress, professional identity, and job satisfaction among psychiatric nurses.

Alternative Hypothesis ($H_a 2$): There was a significant moderating effect between demographic factors (years of experience) and job satisfaction, work environment, job stress, and professional identity among psychiatric nurses.

I used a demographic questionnaire to collect information relating to age, level of education, inpatient psychiatric experience, years of experience as an RN, and specialization unit. I used an additive index with two questions by Wang and Bower (2019) to measure job satisfaction. I also employed three instruments to measure the remaining three variables. These were:

1. The Practice Environment Scale of the Nursing Work Index (PES-NWI) by Lake (2002). The PES-NWI included 31 items and had five subscales. I used this instrument to assess RQ1 and RQ2.

2. I used the Nurses Professional Values Scale-3 (NPVS-3) by Weis and Schank, (2017) to evaluate professional values. This scale included 28 items with a three-factor structure. I used this instrument to assess RQ1 and RQ2.
3. The Psychiatric Nurses Job Stress Scale (PNJSS) by Yada (2011) was valid as a tool for evaluating psychiatric nurse job stressors and had 22 items from four factors. I used this instrument to assess RQ1 and RQ2.

Theoretical Framework

I used Herzberg's motivation-hygiene theory in this cross-sectional study to understand the relationship between the variables identified in the posed research questions. Herzberg's theory, initially published in the late 1950s, identified elements within a workplace environment that lead to satisfaction or dissatisfaction (Herzberg et al., 2010). According to the theory, motivators are the foundation for understanding employee behavior. Motivators are intrinsic to the individual and reflect basic human needs for psychological growth. These factors are instrumental in creating and maintaining strong positive effects on employees' job performance. Job satisfaction can result when motivating factors such as an opportunity for growth, advancement, achievement, job recognition, responsibility, and work itself impact an employee positively (Herzberg et al., 2010).

Hygiene factors are extrinsic factors and include job security and job status, relationship with subordinates, peers, or supervisor, personal life, company policy, salary, and work conditions (Herzberg et al.,1959, 2010). These factors act to mitigate feelings of job dissatisfaction, and if unfulfilled, can lead to extreme job dissatisfaction (Herzberg et al., 1959, 2010). Motivating factors include the job and the tasks associated with it,

while hygiene factors include the environment and situation in which the job is performed (Herzberg, 2010).

Herzberg's motivation-hygiene theory provides a framework for understanding how the variables in this study influence job satisfaction. In this study, professional identity is a motivator, while the work environment, including job stress, is considered a hygiene factor. I used the knowledge of the motivating and hygiene factors from Herzberg's theory to identify the extent to which the work environment, job stress, and professional identity affect job satisfaction among psychiatric nurses. In this study, I used the Herzberg motivators and hygiene factor constructs to explain the influence of the motivational factors (work environment and job stress) and the hygiene factor (work environment) on job satisfaction.

Nature of the Study

A quantitative approach determines the strength of associations between variables and outcomes through a sample from which inferences to a population are drawn (Esperon, 2017). A quantitative, cross-sectional correlational research design was used to gather relevant information to address the posed research questions. The purpose of quantitative-driven cross-sectional research was to examine whether, and to what extent a relationship existed between:

1. Job satisfaction and work environment,
2. Job stress, and
3. Professional identity of psychiatric nurses working in inpatient psychiatric hospitals in the United States.

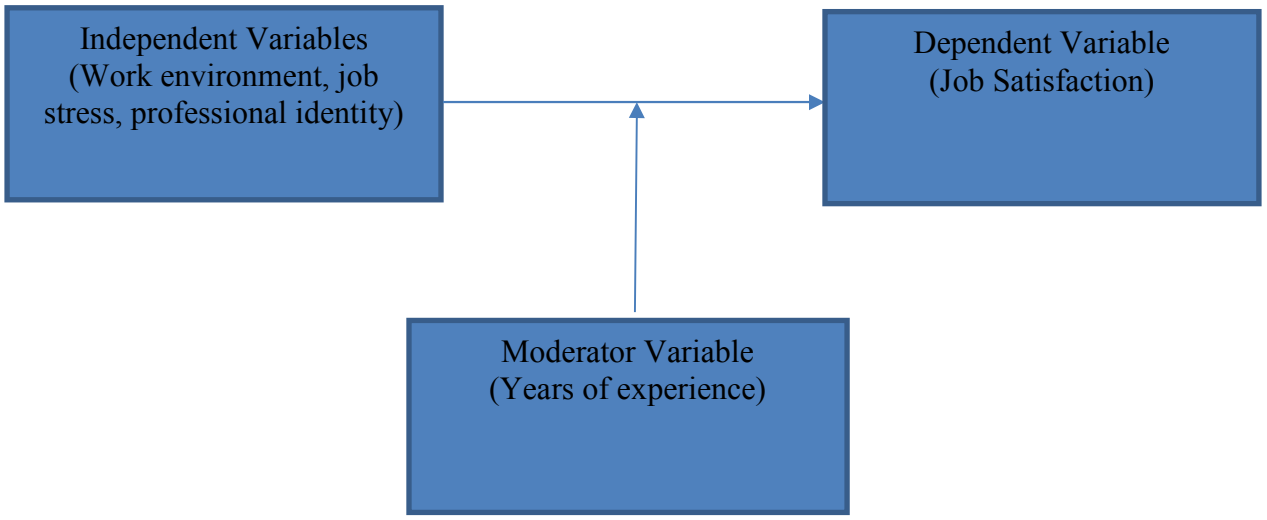
In this study, I examined relationships among the variables. The data collection took place at one point in time, from a representation of the target population.; this method of data collection aligns with a quantitative cross-sectional approach.

The predictor variables for RQ1 in this study included work environment, job stress, and professional identity, while the dependent variable was job satisfaction. The moderating variable includes selected demographic factors (years of experience). Figure 1 illustrates the moderation effect diagram. The survey was conducted through an anonymous online survey. Four tools used for the study were: PES-NWI, PNJSS; NPVS-3, and an additive index for job satisfaction.

I used a demographic questionnaire to collect information relating to age, level of education, inpatient psychiatric experience, years of experience as an RN, and specialization unit. The target population was psychiatric RNs working in an inpatient psychiatric facility for at least six months in the United States.

Figure 1

Moderation Effect Diagram



The independent variables job environment, job stress, and professional identity had a nominal or categorical response, which defined the level of measurement for the study variables. The dependent variable job satisfaction responses were grouped as a nominal or categorical variable. Based on a certain level of measurement represented in the response options for the independent and dependent variables, I used a multiple logistic regression for the inferential analysis. I generated the bar charts and tables for the descriptive analysis and interpreted them accordingly. I conducted the descriptive and inferential analyses using the Statistical Package for the Social Sciences (SPSS).

I used the G*Power software to calculate the required minimum sample size (Faul et al., 2007). For the G*Power estimation, the predetermined effect size was 0.15. The predetermined statistical power and beta value (Type II error or false-negative parameter) for this study was 80% (0.80) and 20% (0.20), respectively. I set the confidence level and alpha value (Type I error or false positive parameter) at 95% (0.95) and 5% (0.05). Under

these specified conditions, the minimum sample size required for this study was 77 participants for RQ1 and 98 participants for RQ2. I started data collection began after obtaining the Walden Institutional Review Board (IRB) approval. I followed and adhered to all ethical standards in conducting this study and complied with all Walden rules and regulations in completing the IRB process and required forms.

Operational Definitions

Inpatient Psychiatric Hospitals: These provided an intensive level of treatment for individuals with mental health disorders and addictive disorders, usually for less than 30 days (APNA, 2019).

Job Satisfaction: Job satisfaction refers to the affective orientation that an employee has towards their work. It is the feelings, attitudes, and behavioral expression for a job (Masum et al., 2016).

Job Stress: Job stress refers to an emotional response to the work-related environment and occurs when the conditions and services are not matched; requirements do not correspond with the abilities, resources, or needs of employees (Hosseinabadi & Etemadinezhad, 2018).

Professional Identity: Professional identity is a person's perception of himself/herself as a member of the profession refers to one's professional self-concept based on attributes, beliefs, values, motives, and experiences (Kabeel & Eisa, 2017).

Work Environment: Work environment refers to the physical, psychosocial, and social organizational characteristics of a work setting that promote or restrain professional nursing practice (Chebor et al., 2014).

Assumptions

I collected the data for this quantitative, descriptive correlation study via an online survey. My first assumption was that participants answered honestly when they completed the survey. My second assumption was that the participants met the eligibility requirements, as was outlined in the screening questions at the beginning of the survey. I assumed that was the participants were currently working in an inpatient psychiatric hospital. I also assumed that the participants understood the information on the survey instructions and the questionnaires. My final assumption was that the quantitative, cross-sectional design was the most appropriate to answer the research questions.

Scope and Delimitations

The scope of the study was to determine the relationship between the work environment, job stress, professional identity, and job satisfaction among nurses working in inpatient psychiatric hospitals. I employed a nonexperimental, quantitative, cross-sectional correlational approach to determine if a relationship exists between the work environment, job stress, professional identity, and job satisfaction among nurses working in inpatient psychiatric hospitals. Instrumentation presents a challenge to internal validity due to the reliability of the tools. To address this limitation, I used only instruments that have been analyzed for reliability and validity.

A potential threat to internal validity is selecting participants who share specific characteristics that predispose them to certain outcomes. (Creswell & Creswell, 2017). For this study, I used a convenience sample that included participants who shared similar positions and responsibilities in inpatient psychiatric hospitals. The participation was not limited to qualifiers such as age, experience, or gender that were predisposed to a shared

demographic a more diverse participant pool. The use of a convenience sample restricted the ability to generalize the conclusions drawn to other specialties of nursing. Recruiting subjects from a large organization helped to increase the generalizability of the study findings within the target population.

Delimitations are choices a researcher makes to explain a functional research problem; they describe the study's boundaries (Thomas, Nelson, & Silverman, 2011). The delimitations or restrictions of this study included only RNs who worked in inpatient psychiatric hospitals and had at least six months of experience. I limited participants to nurses who worked in inpatient psychiatric hospitals, to ensure that respondents had knowledge of the profession and the underlying factors that affected job satisfaction. Nurses who had less than six months of experience in their current position did not have adequate knowledge and exposure to all the inpatient psychiatric hospitals' internal policies and systems.

Limitations

There were potential limitations to this research. First, I limited the target population to psychiatric nurses working in the United States; thus, the findings were limited to this population, and there was no inference of generalization. Second, I used a non-probability sampling technique. This also limited generalizability. Third, I used a correlational design. A correlational design can identify relationship, not a causal association.

Bias is a deviation from the truth in data collection, data analysis, interpretation, and publication, affecting the study conclusions (Simundic, 2013). Nonresponse bias occurs when participants choose not to respond or the inability to reach the participants.

To reduce nonresponse bias, I opened the survey collection period for four weeks until I obtained the required sample. I collected data anonymously. I posted the study link on the professional organization website, the survey flyer, and social media sites for licensed registered nurses. The nurses accessed the survey link to anonymously complete the questionnaires at a time and place of their choosing. I offered a gift a gift certificate as an incentive to motivate participants to take part in the study and to thank them for their time. Response bias is created when the participants' responses are imprecise, and the researcher analyzes the answers incorrectly (Simundic, 2013). I used multiple instruments for data collection, I structured the questions appropriately by grouping those that belong to each construct together. Each survey contained many questions; this had the potential to create participant exhaustion.

Significance of the Study

Professional identity can create a sense of belonging to the profession and increase job satisfaction (Kabeel & Eisa, 2017). Job dissatisfaction threatens the quality and safety of patient care services, and is a significant issue for healthcare organizations, especially in nursing. Healthcare organizations are concerned about the impact of job dissatisfaction on the shortage of nursing staff, the effect on patient care, and the associated costs to the facility (Al-Maqbali, 2015). The results of this study have the potential to help psychiatric nurses identify factors that helped them develop their professional identity, contribute to individual autonomy, and professional self-confidence; these factors are likely to help increase job satisfaction.

The findings from this study had the potential for positive social change for three groups, nurses, healthcare organizations, and patients. These findings could be used by

healthcare administration to develop policies and procedures that create better services and work environment that support nursing practices. Administration could use the findings to identify the critical dissatisfaction issues that must be addressed to retain their workforce and decrease the financial cost associated with hiring and orientating new psychiatric nurses. The findings could guide nurse managers to build an empowering work environment that fostered work engagement and satisfaction among nurses, which could facilitate professional identity.

Investigating the extent to which job satisfaction among psychiatric nurses was influenced by job stress, work environment, and professional identity have the potential to alert nurses to factors that influenced their job satisfaction. They can proactively develop strategies to decrease the adverse effects and facilitate satisfaction within their profession.

Summary

Chapter one provided background evidence on the significance of factors that affect job satisfaction and dissatisfaction among psychiatric nurses. For any health organization to exist and prosper, it is vital to understand the nurse's job satisfaction and its contributing variables (Mrayyan, 2005). A nurse's job satisfaction plays an essential role in delivering quality health care (Semachew et al., 2017). Work-related stress is a vital factor that can lead to hostility within the work environment and low job satisfaction (Hoboubi et al., 2017).

To increase job efficiency, the organization must identify factors that attend to the needs of its employees and promote a pleasant working environment (Raziq & Maulabakhsh, 2015). When employees have a positive professional identity with their

jobs, they become dedicated and enthusiastic about their work; this helped decrease dissatisfaction caused by a challenging working environment (Coetzee & van Dyk, 2018). In Chapter two, I will discuss the literature search strategy, Herzberg's motivation-hygiene theory, and how it guides the study. In addition, I will present a solid foundation of literature review related to key concepts of job satisfaction, work environment, job stress, and professional identity of psychiatric nurses.

Chapter 2: Literature Review

Job satisfaction is an essential factor in the quality of health care. It is vital to increase a nurse's job satisfaction because it has the potential to ensure an adequate nursing workforce (Lu et al., 2019). Psychiatric nurses work in a highly stressful environment due to its unpredictable nature. They face various stressors, such as a shortage of nurses and volatile patient behavior, including aggression and violence (Zaki, 2016). In such an environment, nurses are required to isolate or restrain violent patients to prevent injuries and deaths (Zaki, 2016). Extended exposure to such job-related stress could lead to burn out and reduce the level of job satisfaction (Dawood et al., 2017). When nurses are satisfied with their jobs, they can establish their professional goals and values (Kabeel & Eisa, 2017).

The purpose of this study was to investigate the relationship between the work environment, job stress, professional identity, and job satisfaction among nurses working in inpatient psychiatric hospitals in the United States and to determine the moderating effect of demographic factor (years of experience) on the extent to which work environment, job stress, and professional identity account for the variance of job satisfaction. The relationship between work environment, job stress, professional identity, and job satisfaction contributed to a better understanding of job satisfaction among nurses. Promoting job satisfaction among this population increased their levels of productivity and efficiency and improved their retention in the workforce (Kabeel & Eisa, 2017).

In this study, I examined the relationship between job satisfaction and its predictors (the work environment, job stress, and professional identity) for nurses

working in inpatient psychiatric hospitals in the United States. I also determined the moderating effect of demographic factor (years of experience) on the extent to which work environment, job stress, and professional identity account for the variance of job satisfaction. In this section, I discuss an overview of the literature search strategies, the theoretical foundation, and current literature related to the key variables job satisfaction of job stress, work environment, and professional identity.

Literature Search Strategy

For the literature review, I conducted an extensive search of multiple databases in nursing, business and management, health sciences, and psychology. The databases included Embase, Sage Journals, ScienceDirect, CINAHL, MEDLINE, Ovid Nursing Journals, ProQuest Nursing, EBSCO, PsycINFO, and Google Scholar. A variety of keywords and phrases used in the search included: *job satisfaction, psychiatric nurses, nurse's professional identity, professionalism, job satisfaction, nurses, predictors of job satisfaction, job stress, nurses' work environment, Herzberg, two-factor theory,* and *motivation-hygiene theory.* I used a combination of these keywords to enrich the search. The articles that I chose were peer-reviewed and non-peer-reviewed, written in the English language, and accessed electronically. I obtained some of the articles from other credible sources, such as the American Psychiatric Nurses Association (APNA) and the U.S. Bureau of Labor Statistics. I also searched for related dissertation studies using two databases powered by ProQuest, Dissertation and Theses Global and Dissertation and Theses at Walden University.

The total number of articles that I retrieved from the search was 226. I located 18 additional records from reference lists. I identified and removed 28 duplicate papers.

After screening the title and abstract, 127 articles did not meet the inclusion criteria. I retrieved the remaining 89 articles in full text and reassessed them for their relevance to the aim and objectives of the review. I excluded 44 articles for the following reasons:

1. The article was not considered research (n = 10).
2. The population referred to in the study was not RNs (n = 24).
3. The focus of the research was not job satisfaction (n = 10).

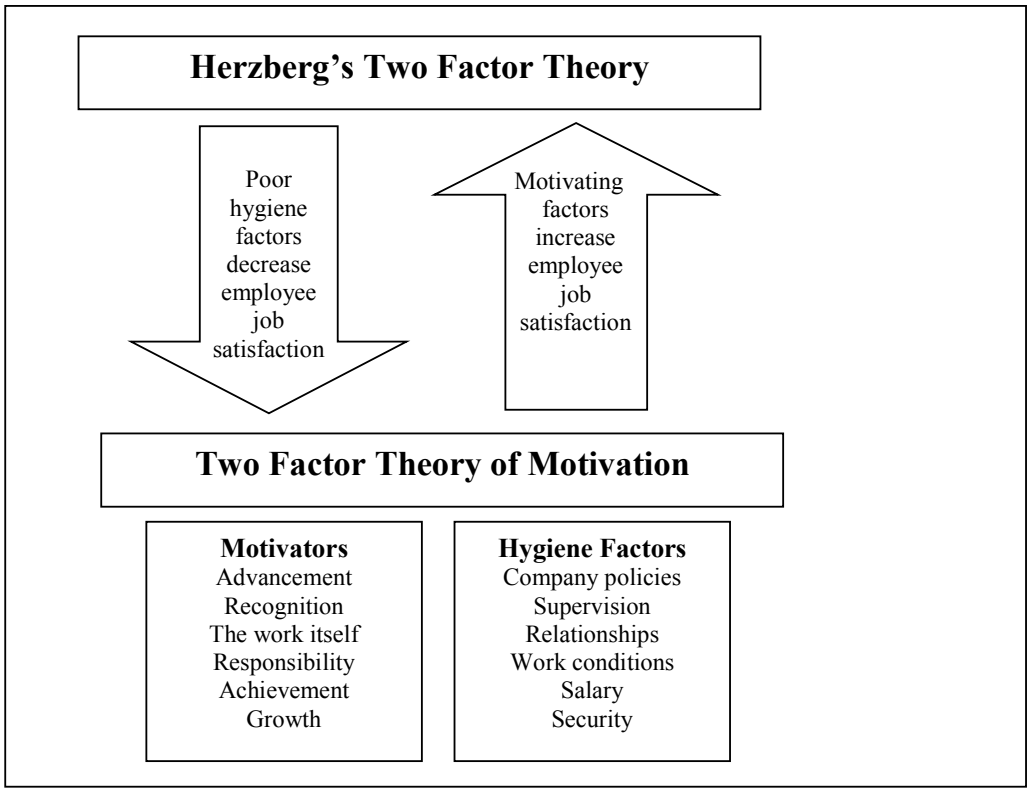
I included a total of 45 studies (one qualitative and 44 quantitative) in this review.

Theoretical Framework

The theoretical framework that guided this study was Herzberg's two-factor theory (Herzberg et al., 1959, 2010; see Figure 1) It is also called the motivator-hygiene theory. Herzberg et al. (1959, 2010) proposed the two-factor theory of job satisfaction. Herzberg sampled 200 engineers and accountants from nine organizations in the United States using structured interviews. Herzberg and his associates sought to find the factors that promote employee attitudes toward their work and what factors explain employee job satisfaction and dissatisfaction. They asked the professionals to indicate the job practices that made them feel either extremely badly or outstanding about their careers and evaluate their feelings on these experiences. The theory was further extended through several studies to include professionals from other disciplines, including nursing (Herzberg, 1968).

Figure 2

Job Factors



(Herzberg, Mausner, & Snyderman 1959, 2010).

Herzberg et al. (1959, 2010) established that individuals are affected by two sets of job conditions that are independent of each other. Herzberg et al. (1959, 2010) asserted that there was a set of job conditions that lead to strong motivation and job satisfaction; however, their absence did not determine job dissatisfaction. These variables were known as motivators. Herzberg et al. (1959, 2010) proposed the motivators were found in the actual job itself, and their presence causes employees to work harder. The motivators supported employees' output and had a positive effect on self-esteem, productivity, and job satisfaction, and overall productivity of the organization. These factors included achievement, advancement, an opportunity for growth, recognition, the work itself, and

responsibility. When suitable to the employee, these factors created a positive job attitude and higher morale leading to greater job satisfaction (Herzberg et al., 1959, 2010).

Other job conditions functioned primarily to prevent job dissatisfaction, but they did not promote job satisfaction. These factors were called hygiene factors. Hygiene factors are not present in the actual job itself but are related to the environment of the job. These factors included salary, personal life, company policy and administration, technical supervision, job security, and interpersonal relationship with superiors, peers, and subordinates (Herzberg et al., 1959, 2010). These factors do not boost motivation, but there is an increased potential for dissatisfaction when removed. A positive work environment does not influence nurses' level of satisfaction, but when exposed to a negative work environment, the potential for job dissatisfaction increases.

According to Herzberg's theory, the two sets of factors are not opposites but distinct because they deal with two different sets of needs (Herzberg et al., 1959, 2010). Overall, the theory states that factors that led to satisfaction, motivators (achievement, advancement, an opportunity for growth, recognition, the work itself, and responsibility) contribute minimally to job dissatisfaction. Conversely, the hygiene factors (company policy and administration, supervision, interpersonal relations, salary, and working conditions) contribute little to job satisfaction (Herzberg et al., 1959, 2010). While hygiene factors do not directly increase a person's job satisfaction, Herzberg et al. (1959, 2010) caution that poor hygiene factors decrease job satisfaction.

Many researchers have applied Herzberg's theory as a framework in different professions, including nursing (e.g., Shinde, 2015; Sithole & Solomon, 2014; Slimane, 2017; Tan & Waheed, 2011; Vévoda et al., (2011). However, they showed different

results. Sithole and Solomon (2014) identified several motivators and hygiene factors affecting job satisfaction among business teachers. In a study to examine the effect of the motivating factors and how they relate to job satisfaction and employee retention of employees in the insurance firms, Shinde (2015) employed Herzberg's motivation-hygiene theory as a conceptual framework. The researcher found that motivators and hygiene factors both create job satisfaction; hence they can be both considered as motivating factors. In a survey involving pharmaceutical sales professionals, Sanjeev and Surya (2016) identified motivators and hygiene. They confirmed that employees are satisfied in the presence of motivators only, and hygiene factors do not lead to satisfaction.

Tan and Waheed (2011) studied the effect of motivational variables on job satisfaction among employees in the retail industry. Based on Herzberg's motivation-hygiene theory, they found that sales employees were more satisfied with the hygiene factors of working conditions, money, and company policy than motivators. The employees emphasized the working conditions; the retail outlets were air-conditioned, comfortable, and had music playing. Contrary to the finding of Herzberg et al. (1959, 2010), Tan and Waheed's results showed that the most influential motivation factor with the highest significance level on job satisfaction was the working conditions. Under Herzberg's theory, the hygiene factor of work conditions created dissatisfaction when they were lacking, but they did not necessarily cause satisfaction if they were present (Herzberg et al., 1959, 2010).

Vévoda et al. (2011) examined the effect of individual work environment factors on levels of job satisfaction among nurses in an outpatient hospital through the two-factor

lens. They identified care for patients and the hygiene factor of salary as the most crucial work factors that promote job satisfaction. Similarly, Ghazi et al. (2013) utilized the Herzberg's motivation-hygiene theory to examine satisfaction and motivational level of university teachers towards their jobs. The motivation of employees relied on the fulfillment of hygiene factors (Ghazi et al., 2013). Herzberg argued that hygiene factors would not motivate employees to exert effort but would only prevent them from being dissatisfied. In another study, Holmberg et al. (2018) used a qualitative explorative study to examine Herzberg's theory with job satisfaction among mental health nursing personnel. Their findings showed that career advancements and incentives, such as salary and compensation, negatively influenced job satisfaction. Although Herzberg's theory proved useful in exploring job satisfaction, the findings partly contradicted the basic tenets of the theory.

Herzberg's two-factor theory was a robust framework upon which to explore the relationship between job satisfaction and work environment, job stress, and professional identity among psychiatric nurses. By understanding the motivators and hygiene factors from Herzberg's theory, I identified the extent to which the work environment, job stress, and professional identity affected job satisfaction among psychiatric nurses. I used Herzberg's motivators and hygiene factors to explain the relationship between work environment, job stress, professional identity (predictor variables), and job satisfaction (outcome variable). The motivator in this study was professional identity, while the work environment and job stress were the hygiene factors. I elaborated on the influence of the motivator of professional identity and hygiene factors of the work environment and job

stress on psychiatric nurses' attitudes toward their work and determined if these variables predict employee job satisfaction.

When applying Herzberg's theory to this study, I asked psychiatric nurses to respond to their encounters of how motivators and hygiene factors could predict their levels of job satisfaction. Psychiatric nurses were likely to experience some change in job satisfaction when the work environment was not healthy, the job became very stressful, and there was not a clear definition of self-concept or professionalism. Herzberg's theory provided an understanding that job satisfaction is an attitude of mind; the motivators and hygiene factors of this theory influence an individual's attitude (Machara & Jain, 2016).

Literature Review Related to Key Variables and Concepts

In this section, I will address the key variables in the study. I will present the current knowledge about the key study variables of job satisfaction, professional identity, work environment, and job stress.

Job Satisfaction

The definition of job satisfaction differs from person to person and with any one person from time to time. Studies related to job satisfaction has been the center of much research on organizational behavior (Halcomb et al., 2018). According to Locke (1969), job satisfaction is a positive emotional state resulting from the employee's job experience. Job satisfaction is not about how a person feels or perceives their job, but it involves the characteristics of the job and their expectation of what the job should present (Lu et al., 2012). Job satisfaction is multifaceted; it includes several constructs such as job conditions, communication, the nature of the work, organizational policies and

procedures, salary and conditions, promotion and professional growth, recognition, security, and supervision/relationships (Lu et al., 2012).

Job satisfaction is an essential issue in any organization. By identifying factors that contribute to job satisfaction, effective strategies can be initiated to improve nurses' job satisfaction and the quality of the care they provide (Hirschfeld, 2009). Mari et al. (2018) used quantitative, descriptive, correlational, and cross-sectional analysis to investigate the level of satisfaction among 190 critical care staff nurses at King Khalid Hospital in Saudi Arabia. The researchers established that most participants were unsure about their job satisfaction (mean = 3.84, $p < .001$). They found a strong significant positive relationship between job satisfaction and fringe benefits ($r = 0.649$, $p < .001$), coworkers ($r = 0.620$, $p < .001$), and operating conditions ($r = 0.504$, $p < .001$). In their study the target population was only critical care nurses which limited generalization of the findings.

Job satisfaction is an important factor in health care. Atefi et al. (2015) conducted a quantitative, cross-sectional study to examine the level of nurses' job satisfaction and its associated factors among 421 RNs working at a large hospital in Mashhad, Iran. They used univariate linear regression analysis. The results of the study revealed a significant association with a higher level of job satisfaction and young age ($\beta = 0.112$, $p < 0.01$), being female ($\beta = 0.238$, $p < 0.01$), and being married ($\beta = 0.335$, $p < 0.01$). There were significant, strong correlations ($p < 0.001$) between total job and all nine subscales of job satisfaction: task requirement ($r = 0.634$), work interaction ($r = 0.787$), decision making ($r = 0.853$), autonomy ($r = 0.784$), professional development ($r = 0.689$), professional status ($r = 0.829$), supportive nursing management ($r = 0.847$), work condition

($r = 0.885$), and salary ($r = 0.595$). Atefi et al. (2015) identified a strong correlation between total job satisfaction and work condition ($r = 0.885$) while the weakest correlation was between salary and total job satisfaction ($r = 0.595$).

Based on Herzberg's theory, I expected salary, a hygiene factor to have a weak correlation with job satisfaction because the hygiene factor was theorized to prevent dissatisfaction but not promote satisfaction. It was of interest that in Atefi et al.'s study work environment, a hygiene factor, correlated highly ($r = 0.885$) with job satisfaction.

Atefi et al. (2015) concluded that job satisfaction correlated positively with the nine subscales of job satisfaction; higher correlations concerning any one of these subscales would motivate higher levels of job satisfaction. They recommended that nurse administration improve job satisfaction among unmarried nurses, male nurses, and older nurses. The findings of the study are limited using one hospital and self-report bias and a cross□sectional research design. The researchers recommend using a qualitative method in future studies to explore why young nurses are more satisfied in their jobs. Atefi et al.'s study was relevant to my study because they investigated the differences between demographic characteristics such as age, years of working experience, level of education, and work unit with nurses' overall job satisfaction.

Job satisfaction has been examined in different regions of different countries. Tao et al. (2012) conducted a quantitative, cross-sectional survey design to examine the level of job satisfaction among Chinese nurses and the differences between northern and southern hospitals concerning nurses' job satisfaction. They recruited 1278 nurses for the study. The researchers found significant correlations between job satisfaction and age ($r = 0.144$, $p < 0.01$), educational level ($r = 0.095$, $p < 0.01$), and job rank ($r = 0.091$, $p <$

0.01). They discovered that marital status and gender did not affect job satisfaction, but there was a significant ($t = 11.208$, $p < 0.01$) regional difference; nurses' job satisfaction in southern hospitals was lower than that in northern hospitals ($t = 11.208$, $p < 0.01$). They identified that age ($\beta = 0.061$, $p < 0.001$) and the southern region ($\beta = 0.268$, $p < 0.001$) were significant predictors of nurses' job satisfaction of.

The use of convenience sampling and selection of hospital nurses from two regions limited the generalization of the results. The researchers recommend investigating nurses' job satisfaction in China and other nations: (a) using a randomized sampling technique, (b) recruiting similar samples from more hospitals, and (c) investigating differences between regions in terms of cultural values, political status, economic levels, and standard of living in further studies.

In an inpatient psychiatric clinic in Sweden, Holmberg et al. (2016) investigated factors that have a positive impact on job satisfaction among 118 psychiatric nursing staff. They utilized a quantitative, cross-sectional study based on Herzberg's motivation-hygiene theory for the study. The researchers found a correlation between salary and job satisfaction ($B = 0.157$). Unlike the assumptions of Herzberg's theory, salary showed a positive correlation with job satisfaction and not only in preventing dissatisfaction. They identified that relations with peers and recognition were rated considerably high ($M = 5.14$ and $M = 4.36$), and these factors correlated significantly with job satisfaction ($B = 0.263$ and $B = 0.298$).

In contrast to Herzberg's theory, Holmberg et al. (2016) identified a direct positive correlation between relations and job satisfaction, and it was a direct motivator. Dissatisfaction with salary (lowest mean $M = 2.42$) was a significant factor contributing

to decreased work motivation. The limitations of the study were the selection of a single hospital clinic with a relatively small sample and the use of the cross-sectional study design. Given these findings, Holmberg et al. suggested more studies to provide broad and more-generalizable results regarding psychiatric nursing staff and job satisfaction. They also suggest using longitudinal designs to understand the development of job satisfaction over time.

Baral and Bhatta (2018) investigated job satisfaction among 62 nursing faculties involved in teaching graduate nursing students in the Chitwan District in China using a quantitative, cross-sectional design. They identified that 79% of the respondents were neither satisfied nor dissatisfied and 21% were not satisfied in their jobs. Age ($p = 0.003$), internet access facility ($p = 0.044$), and increment in grade system ($p = 0.004$) correlated significantly with job satisfaction**.** The researchers concluded that a healthier working environment with certain aspects for personal and professional growth is essential to improve faculty's job satisfaction and performance.

Professional Identity

Professional socialization is fundamental for involving nursing students in professional practice. Professional socialization is a process whereby an individual acquires skills, opinions, values, and behaviors needed to meet the professional role, while gaining an identity that reflects the characters, knowledge, and abilities of the chosen profession (Brown et al., 2012). The outcome of professional socialization is a professional identity (Dinmohammadi et al., 2013).

The formation of nurses' professional identity begin at initiation of their education, progresses throughout clinical practices, and continues to improve during their

professional life (Johnson et al., 2012). According to the National League of Nursing (NLN, 2014), professional identity is the internalization of core values and norms recognized as vital to the art and science of nursing. As the nurse progresses in education and grows in the profession, these core values become self-evident. The nurse adopts these fundamental values in every aspect of practice while working to promote the ideals of the nursing profession (NLN, 2014).

Internalizing values of the nursing profession is paramount to professional development because such values provide a basis for behavior (Zarshenas et al., 2014). Brennan and Timmins (2012) asserted that the core identity of an individual before entering the nursing program is remolded through the professional socialization process, interactions, relationships, and experiences during the program. A firm but adaptable professional identity is fundamental to the enrolment of nursing students, the quality of nursing care provided, and retention of existing staff (Sabanciogullari & Dogan, 2015). Professional identity is a self-socialization concept that is based on the motivation, beliefs, attitude, and experiences of a person and is considered a critical factor in providing qualified care (Mousazadeh et al., 2018).

Deppoliti (2008) conducted a qualitative study on hospital nurses' experiences in constructing their professional identity. She interviewed 16 participants in the first 3 years after graduation from nursing school. they used two questions to guide the study: (1) How do nurses think about their occupation and their place in it? and (2) What factors do nurses feel to influence the construction of their professional identity? She identified several transition points as nurses progressed in establishing their professional identity. These transition points include finding a niche, adjustment, the conflict of

caring, taking the board examination, becoming a charge nurse, and moving on. The nurses reported placing more emphasis on a sense of responsibility, the need for continual learning, and perfection. She stressed that hospital management should provide support to ensure that there is a successful fit between the nurse and their work environment; they emphasize that this fit impact nurses' sense of professional identity. She asserted that professional identity begins to form in nursing school and continues through the continuum of the practice of nursing.

Serpil and Filiz (2012) investigated the effect of the professional behavior of nurses on their job satisfaction. They sampled 531 nurses working in the university, state, and private hospitals in Turkey. They employed a quantitative methodology adopted a descriptive design to determine the consequence of the professional behavior of nurses on their job satisfaction. They identified that the relationship between job satisfaction and professionalism was statistically significant ($r = 0.299$ and $p = 0.000$). The nurses were motivated by their professionalism, as postulated in Herzberg's theory. The findings indicated that the professionalism level of the nurses working in the private hospital were higher than those of the nurses working in other hospitals. They attributed these results to nurses working in the private hospital having higher participation in community service, professional organizations, and autonomy that boost their professional advancement and raises job satisfaction.

Sabancıogullari and Dogan (2015) used a quasi□experimental design to evaluate the effects of a professional identity educational program on professional identity, job satisfaction, and burnout levels among two groups (30 study and 33 control groups) of registered nurses working in a university hospital. Burnout levels significantly decreased

in the study group while levels in the control group increased; there was no significant difference in nurses' job satisfaction. They indicated that the program had a positive impact on the professional identity of nurses in the study group compared to that of the control group. Limitations included the small sample size and location of one hospital. They recommend repeating the study using a larger sample size and nurses from other hospitals (Sabancıogullari & Dogan, 2015).

Hassan and Elhosany (2017) evaluated the nature of professional identity and its relationship with turnover intention among 457 staff nurses at two sectorial hospitals in Egypt. Staff nurses working at Suez Canal University Hospital had a higher professional identity than those working at Shubra General Hospital. The turnover intention among staff nurses at Shubra General Hospital was higher than those at the Suez Canal University Hospital. There were significant positive correlations between professional identity and staff nurses' age and years of experience ($p < 0.05$), significant negative correlations between turnover intention and staff nurses' age, and years of experience ($p < 0.05$). In addition, there was a statistically significant negative correlation between professional identity and turnover intention among staff nurses in both study settings ($p = 0.05$). This finding was consistent with the findings of Sabanciogullari and Dogan (2015), that intention to leave the job was higher among the nurses with low professional identity. Hassan and Elhosany recommended assessing factors affecting staff nurses' professional identity and contributing to nurses' turnover intention in future studies.

Work Environment

Work environment refers to the physical, psychological, and social elements of a workplace that would affect employees' output performance positively or negatively

(Agbozo et al., 2017). The physical work environment is the physical or tangibles at the setting where the job takes place, such as machinery, office layout, temperature, ventilation, and lighting, which can influence the level and quality of social interaction among employees (Agbozo et al., 2017). The psychological work environment referred to the mental activities that an employee experiences during working hours, such as stress, cooperation, and conflict. The social work environment refers to relationships in job settings. It includes communication styles and the relationship between superiors and subordinates.

Aiken and Patrician (2000) attributed a supportive work environment to organizational components such as adequate staffing, adaptable scheduling, and supportive leadership that promote nurses' professional practice. The nursing work environment is a component of a work setting that promotes or limits nursing practice (Lake & Friese, 2006). Nurses' work environment is identified as a critical organizational factor with a stronger relationship with job satisfaction than any other organizational or personal factor (Agbozo et al., 2017; Mari et al., 2018; Raziq & Maulabakhsh, 2015).

Poor working environments could be stressful and result in a lack of job satisfaction (Ella et al., 2016). Wang et al. (2015) examined the underlying factors and predictors of job satisfaction among 444 nurses working with older adults in 22 elderly care facilities in Shanghai, China. The researchers identified personality, job, and organizational characteristics as essential factors of nurses' job satisfaction, but the practice environment had the most substantial impact on job satisfaction (*Beta* = 0.494). There was a significant strong positive correlation between job satisfaction and the

nursing practice environment (r = 0.6601, $p < 0.001$). Wang et al. (2015) identified the practice environment as a key predictor of job satisfaction among nurses.

The researchers suggested longitudinal studies in the future to verify the findings of this study. In addition, they proposed replication the study in other geographical areas in China. Wang et al. (2015) related to my study in that they explored the nursing practice environment as a predictor factor for nurses' job satisfaction. Albashayreh et al. (2019) conducted a quantitative, cross-sectional descriptive study, which involved 454 hospital nurses from Oman, to examine the level and variability of the nurse work environment and job satisfaction. Consistent with Wang et al. findings of practice environment and job satisfaction, Albashayreh et al. (2015) found a positive correlation existed between work environment and job satisfaction.

Promoting a good working environment is vital for employees' job satisfaction because it inspires individuals to stay committed to the organization (Raziq & Maulabakhsh, 2015). AbuAlRub et al. (2016) studied the relationships between work environment, job satisfaction, and intention to stay at work among 330 hospital nurses in underserved areas in Jordan. The researchers found a positive and significant correlation between intention to stay and work environment (r = 0.19, $p < .01$); a weak, but positive significant correlation between nurses' job satisfaction and nurses' intention to stay at work (r = 0.15, $p < .01$); and strong positive correlation between job satisfaction and work environment (r = 0.65, $p < .01$). In contrast with Herzberg's findings that the fulfillment of hygiene factors does not make employees satisfied or motivated in the workplace. AbuAlRub et al. (2016) identified housing provision for nurses was a vital aspect of the work environment that predicted satisfaction among nurses. They concluded

that a supportive work environment is important for nurses who work in an underserved area. A convenience sample limited the generalizability of the results. The researchers suggested further studies to explore other variables that positively or negatively affect the level of intention to stay at work.

Goh and Lopez (2016) explored the relationship between job satisfaction, work environment, intentions to leave, and other predictors of their intentions to leave among 495 migrant nurses working in a tertiary public‐funded hospital in Singapore. The researchers found that job satisfaction was high, but there was a negative correlation between job satisfaction and each of the domains of work environment: nurse participation in hospital affairs ($r = -0.539$, $p < 0.01$), quality of care ($r = -0.472$, $p < 0.01$), nurse manager ability ($r = -0.525$, $p < 0.01$), staffing adequacy ($r = -0.538$, $p < 0.01$), nurse-physician relationship ($r = 0.372$, $p < 0.01$) and nursing information technology ($r = -0.329$, $p < 0.01$). This finding supports Herzberg's, assumption that work environment was a hygiene factor and did not correlate positively with job satisfaction.

Using a quantitative descriptive cross‐sectional survey design, Al-Hamdan et al. (2017) examined the associations among the nursing work environment, nurse job satisfaction, and intent to stay for 650 nurses who worked on inpatient units in three different types of hospitals in Jordan. The result indicated a positive association between nurses' job satisfaction and the nursing work environment ($t = 6.42$, $p < .001$). The hospital and unit types were both significantly associated with nurses' job satisfaction. Al-Hamdan et al. (2017) findings were consistent with the previous study by Aiken et al. (2008). They showed a positive relationship between healthy work environments and job

satisfaction. Both findings are striking. Based on the assumption of Herzberg's work environment is not a motivator, but when it is lacking, it can hinder job satisfaction.

Job Stress

Job stress is the relationship between an individual and the environment as assessed by the person as exceeding or compromising to his or her resources and well-being (Lazarus & Folkman, 1984). When employees are subjected to stressors such as poor working relationships, high workload, lack of support, or positive feedback from supervisors, a characteristic syndrome of physical reactions would occur (Yadav et al., 2017). The stress response could be physical, psychological, emotional, or spiritual. Job stressed individuals are likely to have higher job dissatisfaction (Yadav et al., 2017). Psychiatric nurses have a unique working environment due to the sensitive nature of their profession, such as locked ward entrances, that increase their exposure to job stress (Ghanei-Gheshlagh et al., 2017; Yada et al., 2015). The complexities of the role performed by nurses, along with organizational factors within the work environment, lead to low levels of job satisfaction (Hayes et al., 2015). Empowering and encouraging work environments to enhance levels of job satisfaction have the potential to decrease job stress in nurses (Hayes et al., 2015; Wang et al., 2013).

Tao et al. (2018) used a descriptive cross-sectional design to examine the correlation between work stress and job satisfaction among 969 community health nurses in Southwest of China. They identified a moderate significant negative correlation between work stress and job satisfaction ($p < 0.001$), suggesting that higher work stress leads to lower job satisfaction. Based on Herzberg's, work stress is a hygiene factor. If stress is absent it does not lead to job satisfaction, but if is present at any level, it may

lead to job dissatisfaction. Tao et al. (2018) identified professional and career advancement, work environment and resources, management and interpersonal relationships, and workload and work duration as significant contributors for job satisfaction ($p < 0.05$). Similarly, Nam et al. (2016) conducted a quantitative, cross-sectional survey to investigate the effects of job stress and job satisfaction among 59 health-workers in endoscopy units in Korea. Job stress differed across job positions, with nurses showing significantly higher levels of stress (48.92±7.97) compared to doctors (42.59±6.37). They found a negative correlation between job stress and job satisfaction ($R^2 = 0.340$, $p < 0.001$). The most important stressors in the endoscopy unit were identified as job demand, insufficient job control, and job insecurity (Nam et al., 2016).

Using a quantitative, cross-sectional study, Hosseinabadi and Etemadinezhad (2018) examined the level of job satisfaction and its relation to perceived job stress among 406 female nurses employed in six hospitals in Babol. They identified a significant relationship between the dimensions of job stress such as ($\beta = 0.173$, CI = 0.095 - 0.365, $p \leq 0.001$), control ($\beta = 0.135$, CI = 0.062 - 0.404, $p = 0.008$), relationships ($\beta = -0.208$, CI = -0.637– -0.209; $p \leq 0.001$) and changes ($\beta = 0.247$, CI = 0.360 - 1.026, $p \leq 0.001$) with job satisfaction. Similarly, Ella et al. (2016) conducted a quantitative, cross-sectional descriptive study to examine the impact of job stress on nurses‟ job satisfaction among 115 nurses in a teaching hospital. The finding revealed that a significant relationship existed between job stress and job satisfaction *($p < 0.05$)*. Organizational factors such as workload and physical work environment are sources of job stress and are negatively related to job satisfaction. As theorized by Herzberg, the work environment, a hygiene factor by itself, cannot lead to job satisfaction.

Job stress can determine nurses' job satisfaction in a hospital (Ella et al., 2016). Salam (2016) examined the prevalence of job stress and job satisfaction and their predictors among 626 healthcare professionals from two hospitals in Saudi Arabia. This quantitative, cross-sectional correlational used a survey to evaluate sources of job stress and job satisfaction on the job. Results from this study indicated the overall prevalence of job stress to be 66.2% and a high rate of job satisfaction (97.0%) among the sampled health care professionals. The researchers identified several predictors of job stress, such as working on weekends, not getting free time compensation, feeling under pressure to meet deadlines (Salam, 2016). However, there was no statistically significant correlation between job stress and job satisfaction (r = -.003, p = .941). According to Herzberg, job stress is a hygiene factor. The presence of hygiene factors does not lead to job satisfaction, but its absence resulted in job dissatisfaction.

Summary

In Chapter two, I provided a review of the theoretical foundation, including application to current studies, and a literature review of critical variables and concepts. Herzberg's theory was relevant to my study as it provided me with an understanding of underpinning factors that influenced job satisfaction and job dissatisfaction in psychiatric nurses. However, the reviews presented a lack of consistency in Herzberg's motivator-hygiene theory. The hygiene factor of job stress had a moderate to negative correlation with job satisfaction. In contrast, the hygiene factor of the work environment had both negative and positive correlations with job satisfaction. These results did not support Herzberg's theory in that he posited that the hygiene factors contributed minimally to job

satisfaction but prevented dissatisfaction. In addition, the motivating factor of professional identity was positively related job satisfaction.

I presented and critically reviewed the relationship between work environment, job stress, professional identity, and job satisfaction. There was no clear direction in the correlation between work environment, job stress, professional identity, and job satisfaction. The findings from my study will fill in the gap in the literature in this area. In Chapter 3, I will provide a review of the research methods, including the design, variables, population, sampling, recruitment, data collection, instrumentation, data analysis, ethical considerations, and threats to validity.

Chapter 3: Research Method

The purpose of this nonexperimental, quantitative cross-sectional correlational study was to examine the relationship among work environment, job stress, professional identity, and job satisfaction for nurses working in inpatient psychiatric hospitals in the United States. I also aimed to determine the moderating effect of demographic factor (years of experience) on the extent to which work environment, job stress, and professional identity account for the variance of job satisfaction.

In the first section of this chapter, I will provide a description of the research design and rationale. I will include the methodology—population, sampling, and sampling procedures in the second section. I will address the instrumentation, operationalization of constructs, and data analysis. Finally, in the fourth section, I will describe the threats to external and internal validity and the ethical concerns and procedures of the study, including the Institutional Review Board (IRB) approval process at Walden University.

Research Design and Rationale

Numerous theories and assumptions are used by researchers in selecting quantitative or qualitative research methods and designs (Johnston, 2014). I determined the study's research design based on the research problem, the research questions the research hypotheses and the study variables. In this section, I will discuss the study variables, research design, design-related constraints, and rationale for the selected quantitative research design.

Variables

Using a descriptive, nonexperimental design, I gathered data to examine the relationship among work environment, job stress, professional identity, and job satisfaction among nurses working in inpatient psychiatric hospitals in the United States. I measured the levels of each variable were measured. The predictor (independent) variables for the research questions included work environment, job stress, and professional identity; the outcome (dependent) variable was job satisfaction, and the moderating variables was the selected demographic factor (years of experience). I operationalized job satisfaction using an additive index with two questions which was created by Wang and Bower (2019). I used the PES-NWI by Lake (2002) to measure the variable of the work environment, and the PNJSS by Yada et al. (2011) to measure the variable of job stress, and the NPVS-3 by Weis and Schank (2017) to measure the variable of professional identity.

Research Questions

Research questions centered on determining the relationship between variables were best answered by conducting correlational research (Field, 2018). I used the following research questions and hypotheses to guide this study:

Research Question 1 (RQ1): To what extent did the work environment, job stress, and professional identity account for the variance of job satisfaction among psychiatric nurses?

Null Hypothesis ($H_0$1): None of the possible three predictor variables (work environment, job stress, and professional identity) would reliably predict job satisfaction among psychiatric nurses.

Alternative Hypothesis (H_a1): At least one of the possible three predictor variables (work environment, job stress, and professional identity) allows for the prediction of job satisfaction among psychiatric nurses.

Research Question 2 (RQ2): What was the moderating effect of demographic factors (years of experience) on the extent to which the work environment, job stress, and professional identity account for the variance of job satisfaction among psychiatric nurses?

Null Hypothesis ($H_0 2$): Demographic factor (years of experience) had no significant moderating effect on the relationship between work environment, job stress, professional identity, and job satisfaction among psychiatric nurses.

Alternative Hypothesis ($H_a 2$): There was a significant moderating effect between demographic factors (years of experience) and job satisfaction, work environment, job stress, and professional identity among psychiatric nurses.

Based on the RQs, a quantitative research design was the most appropriate design for the study. Quantitative research examines an independent variable's impact on a dependent variable (Field, 2018). Researchers use a correlational design to predict and determine a significant linear relationship between the predictor and outcome variables and discover the relationship's direction and strength. (Bloomfield & Fisher, 2019). In this study, I examined if there existed a relationship between the work environment, job stress, professional identity, and job satisfaction among nurses working in inpatient psychiatric hospitals in the United States. A descriptive design is used to identify the relationships between and among variables, while a predictive design is used to identify the level of outcome variable from the measured values of the predictor variables; the

model testing design is used to test theoretical relationships (Grove et al., 2014; Seeram, 2019).

Time and Resource Constraints

The quantitative, cross-sectional correlational design was suitable for this study, considering the time available for completion. Cross-sectional studies are comparatively inexpensive and quick to carry out; multiple measurements can be taken simultaneously and there is no manipulate of variables (Houser, 2015). I used multiple instruments for data collection-imposed time and resource constraints on the study. There were three instruments and a total of 83 questions and demographic questions. I structured the questions appropriately by grouping questions that belong to each construct together. I minimized the participants' time constraint to answer the questionnaire to 20 minutes by using an electronic format. I collected data more quickly by using a survey.

Rationale for Choice of Research Design

For this study, I used a quantitative, cross-sectional correlational design to examine whether there were significant relationships between the work environment, job stress, and professional and job satisfaction among psychiatric nurses. A quantitative approach is suitable for this study because it provides answers to the research questions and the strategies help analyze the outcome in a numerical format. I used multiple linear regression to determine whether the work environment, job stress, or professional identity reliably predict job satisfaction. Regression analysis is a quantitative method used to test the nature of relationships between the independent or predictor variable(s) and the dependent or outcome variable(s) (Creswell, 2014). Multiple linear regression is a

reliable statistical technique used to determine the strength of the effect that the predictor variable has on the outcome variable (Keunecke et al., 2019).

Qualitative research allows researchers to explore the depth, richness, and complexity inherent in human lives (Grove et al., 2015). In qualitative research, researchers gain insight without analyzing statistical variables (Creswell & Creswell, 2017). Qualitative research involves a set of interpretive, material practices that make the world visible (Creswell & Creswell, 2017). These practices transform the world into a series of representations, interviews, documentations, and memos to the self (Creswell & Poth, 2016). A qualitative approach was not appropriate for this study because my focus was on a statistical examination of the relationship between the dependent and independent variables.

Methodology

In this section, I will discuss the target population, sampling techniques and sampling procedure, recruitment, participation, consent, and data collection. I also will discuss instrumentation and operationalization of constructs, data analysis plan, threats to validity, and ethical considerations.

Population

In a research study, samples are drawn to represent populations. A population or target population is the entire set of subjects of interest to the researcher (Houser, 2015). The target population for this study was RNs working in inpatient psychiatric hospitals in the United States. Choosing the appropriate population had a strong effect on research findings. The sample must be unbiased represent the target population.

Sampling and Sampling Procedures

The sampling included the sampling strategy of the study, the procedures drawing the sample, the sampling frame, and the power analysis to determine the sample size. I will discuss these further below.

Sampling Strategy

I employed a nonprobability sampling approach. I obtained access to the target population through convenience and snowball sampling techniques and a paid pool participant from SurveyMonkey. In the convenience sampling method, the researcher selects the participants based on their convenient accessibility (Martínez-Mesa et al., 2016). Researchers use snowball sampling to locate the target population in a specific place (Elfil & Negida, 2017). In this study, I will ask participants to deliver the survey to their colleagues from the same population. The snowball sampling technique relies on referrals from existing subjects for the research study (Elfil & Negida, 2017). I posted the link to the survey on the nursing professional organization website and the survey flyer, including the link to the survey on social media. For the paid pool participants, SurveyMonkey recruited participants for the survey by sending them an invitation.

Procedure for Drawing the Sample

For the convenience sample, I recruited qualified participants through a professional organization website, the APNA, and social media sites. I contacted the associate executive director of APNA to obtain permission to post the link to the survey on the organization website. I obtained permission from the professional organization via email to post the link to the survey on the organization's discussion forum.

Inclusion and Exclusion Criteria

The participant eligibility requirements for this study included (a) employment as an RN, (b) employment in inpatient psychiatric hospitals in the United States, and (c) a minimum of six months' work experience as an RN at the individual's current employment. Participants could work full or part-time. There was no age limitation. I excluded retired RNs from the study. I verified the participants' eligibility to participate in the survey through screening questions at the beginning of the electronic survey. Appendix A includes a sample of the invitation to participate in letter and eligibility criteria.

Power Analysis and Sample Size

In a cross-sectional design, the sample size is essential to capture a population's representation for prevalence purposes (Mann, 2003). I used the G*Power software developed by Faul et al. (2009) to determine the sample size. I utilized the multiple linear regression as the primary statistical test for this study. Using Faul et al.'s G*Power software, I performed a priori power analysis for multiple linear regression with a fixed model, R2 deviation from zero. The α level (level of significance) value for the study was .05 (Frankfort-Nachmias et al., 2015). Based on an alpha of .05, a power of .80, a medium effect size ($f2 = .15$), three predictors (work environment, professional identity, and job stress), the minimum sample size was 77 for RQ1. With six predictors (work environment, professional identity, and three interaction effects with years of experience), based on medium effect size ($f\,2 = .15$), an alpha level of $\alpha = .05$, the needed sample size to achieve sufficient power (.80) was 98 participants. Based on the predicted sample sizes for the two RQs, I set the sample size at 105.

Recruitment, Participation, Consent, and Data Collection

I recruited RNs working in inpatient psychiatric hospitals via social media, professional organization, snowballing, and a paid pool participant from SurveyMonkey. In this section, I will detail the procedures for recruitment, participation, and data collection.

Recruitment

The target population for the study was RNs working in inpatient psychiatric hospitals in the United States. I recruited participants through the APNA. I posted links to the survey to the nursing professional organization discussion forum and posted research flyers with information about my study and a survey link on social media sites. I asked participants to share the link to the study with their peers who met the study requirements. I invited each participant who met the inclusion criteria for participation (Appendix A) and obtained demographic information.

Participation

I posted the survey on SurveyMonkey. When the participants accessed the survey, the first page they saw was the informed consent. The consent contained an invitation letter and the eligibility criteria**.** The eligibility criteria included employment as an RN, inpatient psychiatric hospitals in the United States, and a minimum of six months of work experience. I did not allow participants who did not meet the inclusion criteria to proceed with the survey. However, they would see a note informing them that they did not meet the criteria for participating in the study and thanking them for their interest in the study. I directed participants who met the eligibility requirements to the informed consent page. The informed consent process minimized unethical actions and protected the participant,

researcher, and institution from harm (Allen, 2017). Participants proceeded to the online survey only after reading through the contents of the informed consent form to understand the purpose of the study and agreed without reservation to the terms outlined in the study. By proceeding to the online survey, participants gave consent to participate in the study.

When the participant completed all the questions, a final screen was displayed to thank the participant for their input, and I directed the participant to a separate form (Appendix G). This form allowed the participant to provide the email address where they would like their e-gift card to be delivered. The participant's response remained anonymous as the reward delivery email address was not part of the survey.

Data collection

I collected data using an online survey platform, SurveyMonkey, for two weeks, and the paid pool participants from SurveyMonkey for another two weeks or until when I met the requirements sample. I exported the data to IBM SPSS Statistics for Windows, version 25, for data analysis. Any identifying information such as internet protocol (IP) addresses or participants' names were separated from the survey data through the anonymous response option available in the SurveyMonkey platform, to ensure anonymity. I stored the raw data as a file in a password-protected electronic format on a flash drive, a secure external hard drive, and a cloud storage system. Participation in the survey was voluntary. Participants could exit the study at any time before the completion of the survey. Participants entered the study at any time within the period that the survey was open and available. I provided both my information and the Research Participant

Advocate at Walden university on the consent form and at the end of the survey, should any participant wished to discuss any questions or concerns.

Instrumentation and Operationalization of Constructs

In this study, I will use the demographic questions, including an additive index with two questions on job satisfaction, the PES-NWI, the NPVS-3, and the PNJSS to collect data. I will describe them further below.

Demographic Questions

The first items I used in the survey included questions to determine the various demographics, including the job satisfaction of the participants. I used the demographic questions to assess age, the level of degree completed in nursing, years of experience in inpatient psychiatric hospital, the number of years working as an RN, and specialization unit. The demographic questions consisted of two questions on job satisfaction.

I measured job satisfaction using an additive index based on participants' responses to two questions: "Considering everything, how satisfied are you with your job?" and "Considering everything, how satisfied are you with your organization?" (Wang & Brower, 2019). I used a five-point Likert scale with scores ranging from 1 *(very dissatisfied)* to 5 *(dissatisfied)*. Previous studies have used these questions for measuring job satisfaction (Oberfield, 2014; Trottie et al., 2008; Wang & Brower, 2019). The index has been shown to demonstrate content validity for job satisfaction since it includes two elements that, taken together, provide a broad perspective of employee satisfaction and also have comparatively internal reliability (Cronbach's alpha = 0.88; Wang & Brower, 2019).

Practice Environment Scale-Nursing Work Index

I used the PES-NWI as the second instrument for this study. Lake (2002) developed the 31-item index from the Nursing Work Index (NWI) as a concise tool for measuring the nurse work environment. PES-NWI consists of a four-point Likert scale ranging from 1 (*strongly agree*) to 4 (*strongly disagree*). The PES-NWI had been used to assess numerous clinical practice settings such as intensive care units, cardiac, orthopedic, and neurologic telemetry units, inpatient psychiatric settings (Eaton-Spiva et al., 2010; Hanrahan, 2007; Manojlovich et al., 2009). The internal consistency coefficients (Cronbach's alphas) for these subscales range from .71 to .84, and intraclass correlation coefficients between .86 and .97 (Lake, 2002).

PES-NWI was classified into five subscales using exploratory factor analysis: (a) nurse participation in hospital affairs, (b) nursing foundations for quality care, (c) nurse manager ability, leadership and support of nurses, (d) staffing and resource adequacy; and (e) collegial nurse-physician relations (Lake et al., 2017; Lake 2002). Hanrahan (2007) confirmed the usefulness of the PES-NWI subscales to describe psychiatric inpatient nurse practice environments and generate reference values. The psychometric properties of the PES-NWI were tested among the psychiatric nurse population and had a standardized Cronbach's alpha coefficient of .95, and the mean inter-item correlations ranged from .27 to .28 (Hanrahan, 2007). Exploratory factor analysis produced a five-subscale structure consistent with the domains identified by Lake (2002). I present the sample PES-NWI for data collection administration in Appendix D. I obtained written permission from the researcher to use the PES-NWI as featured in Appendix H.

Nurses Professional Values Scale-3

The NPVS-3 was the third instrument I used for this study. The NPVS-3 was derived from the American Nurses Association Code to measure professional values (Weis & Schank, 2017). Each item in the NPVS-3 had a brief descriptive phrase that mirrored a specific code provision and its interpretive commentary. There was no reverse scoring or subscales in the NPVS-3. The score ranged from 28–140; the higher the score, the stronger the nurse's professional value or identity (Weis & Schank, 2017).

According to Weis and Schank (2017), the NPVS-3 is a 28-item instrument, across a three-factor structure, with a five-item Likert scale format, ranging from 1 *(not essential)* to 5 *(most important)*. The three factors include caring, activism, and professionalism. The concept of caring is fundamental to nursing practice. There were ten items in this factor, and they focused on the dedication to the patient, family, society, association, or state. Activism contained ten items that related to the role of the profession in developing public policy, professional efforts in advancing global health, decreasing health inequalities, supporting nursing organizations, and adding to scholarly research. Professionalism had eight items that related to the duty for the work environment, personal and professional growth, leadership in advancing health, accountability, and obligation for the practice (Weis & Schank, 2017).

NPVS-3 is a potent tool suitable for evaluation and research and can be used in different nursing practice settings to ascertain the development and sustainability of professional identity or values (Weis & Schank, 2017). NPVS-3 has established reliability and validity. Cronbach's alpha was used to establish the reliability, and it was .885 for Factor 1, .912 for Factor 2, .799 for Factor 3, and .944 for the total scale (Weis & Schank, 2017). Factor analysis was used to ascertain validity. The Kaiser-Meyer-Olkin

measure of sampling adequacy was .96, and Bartlett's test of sphericity was statistically significant ($p < .000$) (Weis & Schank, 2017). Appendix E displays the sample NPVS-3 for data collection administration. I obtained written permission from the author to use their scale for my study (Appendix I).

The Psychiatric Nurse Job Stressor Scale

The third instrument I used for this study was the Psychiatric Nurse Job Stressor Scale **(**PNJSS). The PNJSS consists of a five-point Likert scale ranging from 0 *(never)* to 4 *(always).* The PNJSS measured job stress using 22 items across a four-factor structure, of which nine statements are positive, and the remaining 13 statements were negative. Negative statements scoring were reversed (Yada et al., 2011). The first factor measured psychiatric nursing ability, including nine items related to practical ability, knowledge, and attitude about psychiatric nursing. The second factor measured the attitude of patients, and it contained six items relating to the attitude of patients toward psychiatric nurses. The third factor consisted of attitude toward nursing. It is composed of five items about the variations in the attitudes about nursing among medical workers. The last factor is communication, and it has two items related to communication with patients and patients' families.

The PNJSS has established reliability and validity, and it is useful for evaluating psychiatric nurse job stressors (Yada et al., 2011)**.** The Cronbach alpha coefficient was used to establish reliability estimates, and it ranged from 0.675 to 0.869 for each subscale and was 0.816 for the overall scale in the PNJSS (Yada et al., 2011). The validity of the PNJSS was determined using the convergent correlation, which ranged from 0.172 to 0.413 ($p < 0.01$), and the predictive validity of the job reaction scale was $r = 0.201–0.453$

($p < 0.01$) (Yada et al., 2011). Appendix F displays the sample PNJSS for data collection administration. I acquired permission from the researcher to use the PNJSS for the study featured in Appendix J.

Data Analysis Plan

I utilized the IBM SPSS Statistics software version 26 (IBM Corp., 2017) to complete the data analysis. I inputted the data into SPSS, version 25, where I labeled the variable, typed as numeric, width and decimal places set, labeled, responses set, missing values coded as –999, column size set, and type of variable set (scale, ordinal, nominal).

Data cleaning

I removed incomplete data and treated them as missing data. If a participant had less than 5% of the answers missing, I estimated or inputted the missing answers using the mean for the whole sample if the variable was continuous and the mode if the variable was nominal or categorical.

Research questions and hypotheses

I used the following research questions and hypotheses to guide this study:

Research Question 1 (RQ1): To what extent did the work environment, job stress, and professional identity account for the variance of job satisfaction among psychiatric nurses?

Null Hypothesis ($H_0$1): None of the possible three predictor variables (work environment, job stress, and professional identity) would reliably predict job satisfaction among psychiatric nurses.

Alternative Hypothesis (H_a1): At least one of the possible three predictor variables (work environment, job stress, and professional identity) allows for the prediction of job satisfaction among psychiatric nurses.

Research Question 2 (RQ2): What was the moderating effect of demographic factors (years of experience) on the extent to which the work environment, job stress, and professional identity account for the variance of job satisfaction among psychiatric nurses?

Null Hypothesis ($H_0 2$): Demographic factor (years of experience) had no significant moderating effect on the relationship between work environment, job stress, professional identity, and job satisfaction among psychiatric nurses.

Alternative Hypothesis ($H_a 2$): There was a significant moderating effect between demographic factors (years of experience) and job satisfaction, work environment, job stress, and professional identity among psychiatric nurses.

I used standard multiple regression to assess RQ1. For RQ2, I used the moderated multiple regression. According to the Laerd Statistics website (Laerd, 2020), there are eight statistical assumptions for multiple regression:

1. Dependent or criterion variable is interval or ratio
2. Two or more independent / predictor variables.
3. Independence of observations
4. The linear relationship between each independent and predictor variable and the dependent / criterion variable.
5. Demonstrated homoscedasticity.
6. Lack of multicollinearity.

7. Absence of outliers, leverage, and influential points
8. Normally distribution of residuals.

Assumption 1 (interval or ratio-dependent /criterion variable) was met since the job satisfaction scale score was measured on the interval level. Assumption 2 (two or more predictors) was satisfied because this study had three predictors (work environment, job stress, and professional identity). Assumption 3 (independence of observations) was met by the study's design, where each nurse only answered the questionnaires once. I measured assumption 4 (linear relationships) using a scatterplot, which includes a least-squares regression line of best fit.

I examined assumption 5 (homoscedasticity) by including a regression scatterplot of the studentized residuals against the unstandardized predicted values. The casewise diagnostics feature in SPSS identified respondents for removal with residuals greater than $z \pm 3.0$. The leverage threshold of 0.2 used was Cook's distance threshold of 1.0. Assumption 8 (normality of residuals) SPSS provided a histogram (with a superimposed standard curve) of the standardized residuals and a Normal P-P Plot.

Analysis plan

Given that multiple statistical tests were performed, the alpha level for this study was set at $\alpha < .005$ to reduce the likelihood of Familywise Type I errors (Cramer et al., 2016). For RQ2, I included the moderating variable of years of experience, because years of experience as a nurse was an important variance in the criterion variable, job satisfaction. In the regression models, I included the following key parameter estimates: unstandardized beta weight (*B)*, standard error of estimate (*SE*), standardized beta weight (β), probability (*p*), and the variance inflation factor (VIF). Also, the footnote contained

the full nomenclature for the ANOVA model: F (9, 99) = 9.99, p = .99, and the coefficient of determination ($R2$) to report the percentage of variance accounted for by the model (Cramer at al., 2016).

Threats to Validity

Reliability

Reliability is the consistency of measurement over time or stability of measurement over various conditions (Torre & Picho, 2016). Validity is the degree to which a researcher's inferred conclusions from data to reflect actuality (Heppner et al., 2015). Validity does not reside in the results but rather in the researcher's analysis of those results (Heppner et al., 2015). Researchers who provide evidence of validity strengthen their arguments and rule out potential confounds (McKibben & Silvia, 2016). The three tools for this study, the PES-NWI, PNJSS, and NPVS-3, aligned with the research questions, and they have a history of established validity and reliability (Lake, 2002; Yada et al., 2011; Weis & Schank, 2017).

External Validity

External validity pertains to whether study outcomes can be generalized across different populations, treatments, outcomes, and settings (Torre & Picho, 2016). Some limitations threatened the external validity of this study. First, the study population was limited to inpatient psychiatric registered nurses in the United States; I was unable to generalize the results to other nurse populations. Second, using a convenience sampling technique in this study was not an accurate representation of the generalized population. Having limited generalizability posed a threat to the study's external validity (Torre & Picho, 2016). The ability to generalize the study result in other regions in the country was

reflected in the study's external validity (Bastos et al., 2014). I used standardized instruments for this study; hence, the study's validity research depended on the instruments' validity. One way to enhance external validity involved increasing the heterogeneity of the study population (McDermott, 2011). I used a convenience sampling method for this study; therefore, it was not possible to predict the heterogeneity of the sample obtained. However, I opened the sample to all inpatient psychiatric registered nurses of all ages, sex, race, and socioeconomic status.

Internal Validity

Internal validity refers to the degree to which inferences can be made about the causal relationship between two variables (Torre & Picho, 2016). The research design for this study was a quantitative, nonexperimental, cross-sectional, predictive correlation. Based on this type of design, many of the threats to internal validity did not apply to this study because it did not involve causal inferences or manipulation of variables (Hoffman et al., 2013).

Construct Validity

Construct validity is demonstrated when the instrument is truly measuring the construct it was designed to measure, and not some other construct. To assess whether the measure has construct validity, we turned to theory and used it to hypothesize the varied ways our new measure should be associated with other variables (DeVellis 2011). For this study, I chose valid and reliable instruments that had appropriate and extensive statistical testing to minimize threats to construct validity. Each instrument was based on established theoretical models and showed excellent internal consistency, with Cronbach alphas (α) at or greater than 0.80 (Weis & Schank, 2017; Yada et al., 2011; Lake, 2002).

Construct validity of the PES-NWI five subscales as measures of psychiatric nursing practice environments was evaluated by comparing the scores of registered nurses analyzed by Lake (2002). The exploratory factor analysis of the PES-NWI retained five subscales from the varimax and the Promax Rotation (Hanharan, 2007). The construct validity of the NPVS-3 was assessed by conducting a confirmatory factor analysis (CFA). CFA was used to support a priori hypothesis with a factor loading range of .31–.95 across three factors, caring, activism, and professionalism (Weis & Schank, 2017). The compatibility of the factor model to the data was 1.750 (c2/d.f., 343.189/196, $P < 0.01$), the goodness of fit index was 0.910, the adjusted goodness of fit index was 0.883, the comparative fit index was 0.924, and the root means square error of approximation was 0.050 (Weis & Schank, 2017). To determine the construct validity for PNJSS, Yada et al. (2011) calculated an item scale correlation coefficient for all items, and it was _0.2 ($P < 0.01$) for all items. The internal consistencies were confirmed in each subscale and on the overall scale. The level of the test-retest reliability coefficient was medium to strong ($r = 0.439–0.771$, $P < 0.01$) in each subscale, and maintained the level of strong (Yada et al., 2011).

Ethical Considerations

Human research involves vital risks (Mandal et al., 2011). This study involved the use of human participants; thus, it is necessary to protect them. This study followed guidelines from Walden University and obtained approval from IRB before collecting data. In this section, I discussed access to participants/data, including the IRB review, ethical consideration for recruitment, and data collection. I also described the treatment of the data below.

Access to Participants

Ethics is the cornerstone for conducting effective and meaningful research (Clark, 2019). I contacted the APNA by phone first. Then, I sent a formal letter to the associate executive director via email, seeking permission to post my study link on the organization website. I received approval to post the study link on the APNA Member Bridge All Purpose Discussion Forum (APDF).

Institutional Review Board (IRB) Review

Research ethics should be based on a realistic assessment of the overall potential for harm and benefit to participants (Chambliss & Schutt, 2018). Researchers must protect research participants by avoiding harm to them. I obtained approval for the study design and procedures from the Walden IRB before recruitment.

Ethical Concerns Related to Recruitment

For this study, the population was not vulnerable; hence this study had minimal to no potential risk to the participants. However, I ensured that the participants remain protected during the study recruitment process. One ethical concern that arose while recruiting the participants for the study was the participants' willingness to participate. The consent stated the participants' options to voluntarily opt-out of participation at any given time before completing the study, and to contact the director of research compliance for Walden if any questions or issues arose after participation in the study.

Ethical Concerns Related to Data Collection

There were no potential conflicts of interest known or ethical concerns regarding data collection methods described in this study. I obtained informed consent from the participants before collecting data per Walden's IRB requirement. Informed consent

included participants' voluntariness, understanding, and disclosure of information (Allen 2017). The informed consent was on the first page for the participants to read before proceeding to the data survey. The informed consent included the goals or aims of the study, anticipated risks, and/or discomfort for each participant, benefits of participation, information storage, and anonymity.

Ethical Concerns Related to Informed Consent

The consents (Appendixes B and B2) included information on the purpose of the study, the goals or aims of the study, a statement about the voluntary nature of the study, and a statement that participants would receive a $25.00 e-gift card to Starbucks for completing the survey (Appendix B). The informed consent also included a statement about the confidentiality processes, including how records were secured, destroyed, explanation of the benefits, and risks of participation. The next section of the survey included the demographic questionnaire, including two questions on job satisfaction (see Appendix C). The demographic questionnaire comprised questions on (a) age, (b) degree in nursing, (c) length of time as a psychiatric nurse, (d) work experience as RN, and (e) unit of specialization. The final section of the questionnaire included the three instruments: the PES-NWI, the PNJSS, and the NPVS-3.

Data Treatment

The data treatment consisted of data anonymity and data protection. I described how participants completed data and how to protect their data further.

Data Anonymity

The participants completed the surveys anonymously; therefore, I did have contact with the participants before completing the survey. The surveys were anonymous;

therefore, I did not have your contact information. To obtain anonymity, I included a link to the survey on the invitation flyer and used the consent form to serve as the first page of the online survey. The participants were given a choice to discuss their rights and confidentiality by contacting the Research Participant Advocate at Walden University.

Data Protection

I protected the study data during and after completion of the study. The SurveyMonkey platform included privacy and security measures to secure study data during the data collection process. I stored study data retrieved from SurveyMonkey platform as a file in a password-protected electronic format on a flash drive, a secure external hard drive, and a cloud storage system in my secure private office. I will keep the data after study completion for at least five years, as required by Walden University IRB. I did not release the raw data to additional individuals unless they were directly involved in the study.

Summary

The research method for the study was a descriptive, cross-sectional correlational design. The selection of this design aligns with the purpose of the study. I used the PES-NWI, PNJSS, NPVS-3, and an additive index with two questions to measure the work environment, job stress, and professional identity, and job satisfaction. The multiple linear regression was the statistical method used to predict job satisfaction based on the work environment, job stress, professional identity, and job satisfaction. The convenience sampling allows recruiting participants for the study. Before data collection, I obtained the ethical approvals from the IRBs of Walden University. The approval number for this study is 06-22-20-0645424. I will discuss the data analysis and results in Chapter 4.

Chapter 4: Results

The purpose of this nonexperimental, quantitative cross-sectional correlational study was to examine the relationships among work environment, job stress, professional identity, and job satisfaction for nurses working in inpatient psychiatric hospitals in the United States and to determine the moderating effect of demographic factor (years of experience) on the extent to which work environment, job stress, and professional identity account for the variance of job satisfaction.

I used this research design to determine whether the work environment, job stress, or professional identity reliably predict job satisfaction. I used results from 109 registered nurses who were working in inpatient psychiatric hospitals. I used the following research questions and hypotheses to guide this study:

Research Question 1 (RQ1): To what extent did the work environment, job stress, and professional identity account for the variance of job satisfaction among psychiatric nurses?

Null Hypothesis (H01): None of the possible three predictor variables (work environment, job stress, and professional identity) would reliably predict job satisfaction among psychiatric nurses.

Alternative Hypothesis (Ha1): At least one of the possible three predictor variables (work environment, job stress, and professional identity) allows for the prediction of job satisfaction among psychiatric nurses.

Research Question 2 (RQ2): What was the moderating effect of demographic factors (years of experience) on the extent to which the work environment, job stress, and

professional identity account for the variance of job satisfaction among psychiatric nurses?

Null Hypothesis (H02): Demographic factor (years of experience) had no significant moderating effect on the relationship between work environment, job stress, professional identity, and job satisfaction among psychiatric nurses.

Alternative Hypothesis (Ha1): There was a significant moderating effect between demographic factors (years of experience) and job satisfaction, work environment, job stress, and professional identity among psychiatric nurses.

In Chapter 4, I will review the process of data collection, verification of validity and reliability, and results of the study. This review will include any discrepancies in the data collection methods, the sample's descriptive statistics, statistical assumptions, presentation of the research questions and hypothesis testing, and the analyses. The remaining sections will contain a review of the statistical analysis findings, emerging statistical tests, and a summary of the study findings.

Data Collection

After the study approval by IRB approval was received on June 22, 2020. I recruited participants for this study through convenience and snowball sampling techniques. I posted the survey link on the nursing professional organization website and the survey flyer, including the survey link on social media. The data collection began on July 16, 2020, and ended on August 17, 2020, via SurveyMonkey. The participants did not receive follow-up emails because of the survey's anonymous nature; I posted flyer reminders during the third week of data collection through social media and the professional nursing organization. I reviewed the 126 surveys completed; 109 responded

to all the items and met the inclusion and exclusion criteria and were used for the analysis. This resulted in an 86.6% completion rate.

I obtained a significant response rate due to snowball sampling and the study's anonymous nature. I discarded seventeen of the responses because the participants did not meet the inclusion or exclusion criteria. I transferred the numerical values into an Excel spreadsheet and then imported the data into SPSS for analysis.

Recruitment and Response Rate

I adhered to the study plans in Chapter 3, with one exception. I did not use the paid pool participant from SurveyMonkey. I used the online survey platform, SurveyMonkey, to obtain the initial samples of 126 participants. I used both convenience and snowball sampling to obtain the participants for this study. I used snowball sampling to expand the potential participant field and increase participation. The snowball sampling technique allows participants to share the survey with friends or those who may have qualified for the survey.

Verification of Validity and Reliability

In this section, I will address the key variables. I will discuss construct validity, content validity, and reliability of the study variables.

Construct Validity

In this study, I will reduce the construct validity threats by using validated and reliable instruments. The four tools I used to collect data were demographic questions, including an additive index with two items on job satisfaction, the PES-NWI, the NPVS-3, and the PNJSS. I used the knowledge gained from other investigations, literature

review, theoretical framework, and research methods determine the extent to which the instruments had contents validity at the initial stage of their development.

Content Validity

Content validity is a nonstatistical type of validity that involves the systematic examination of a test's content to correspond to the content of the construct to be measured (Field, 2018). It is vital to establish a new measurement procedure's content validity or revise an existing tool (Laerd, 2015). Each instrument used for this study has established construct validity. Lake (2002) analyzed the construct validity of the PES-NWI using five subscales as measures of psychiatric nursing practice environments by comparing the scores of RNs. To evaluate the construct validity of the NPVS-3, Weis & Schank (2017) used a CFA to support a priori hypothesis with a factor loading range of .31–.95 across three factors, caring, activism, and professionalism. To determine the construct validity for PNJSS, Yada et al. (2011) calculated an item scale correlation coefficient for all items, and it was _0.2 ($P < 0.01$) for all items.

Reliability

Reliability in statistics and psychometrics is the ability to produce consistent results when the same entities are measured under different conditions (Field, 2018). I employed the following instruments for this study: the PES-NWI, the NPVS-3, and the PNJSS and an additive index for job satisfaction. Each scale includes items relating to its specific focus. For professional identity, participants answered 28 questions using NPVS-3, relating to the nursing professional values in an inpatient psychiatric hospital, using a five-point Likert type scale. A rating of 1 indicates *not essential*, and a rating of 5 indicates *most important*.

For the work environment, participants answered 31 questions from the PES-NWI relating to the nursing practice environment, using four-point Likert scale ordering. The scale ranges from 1 (*strongly agree*) to 4 (*strongly disagree*). Participants answered 22 questions using the PNJSS relating to psychiatric nurse job stressors for job stress, using a four-point Likert scale. A rating of 0 indicates *(never)* to 4 *(always)*. Job satisfaction was measured using an additive index based on participants' responses to two questions about their satisfaction with their job and with the organization, using a five-point Likert scale ranging from 1 *(very dissatisfied)* to 5 *(dissatisfied)*. A rating of 1 indicates *very dissatisfied* participants, and a rating of 5 indicates participants who are *dissatisfied* with the relevant items.

A measure is said to have a high reliability if it produces similar results under consistent conditions (Field, 2018). The Guttmann split-half reliability coefficient was used to verify the instruments' reliability from the study sample's responses. The results showed that the four standardized scales used in this study have adequate reliability coefficients ranging from 0.877 to 0.975 (see Table 1). I measured job satisfaction based on participants' responses to two questions using an additive index (Wang & Brower, 2019), and it showed comparatively internal reliability (Cronbach's alpha) of 0.88 based on the reliability test for the two items included in this scale post data.

I used the PES-NWI (Lake, 2002) to measure the nurse work environment. The PES-NWI has established internal consistency coefficients (Cronbach's alphas) for different subscales in numerous clinical practice settings ranging from .71 to .84, and intraclass correlation coefficients .86 and .97 (Lake, 2002). Lake (2002) tested reliability

for the 31 items included in this scale post data collection using Cronbach's alpha and demonstrated an alpha of $\alpha = .97$.

I used the NPVS-3 created by Weis & Schank (2017) to measure professional identity. Weis & Schank used the Cronbach's alpha to establish the reliability and it was .885 for Factor 1, .912 for Factor 2, .799 for Factor 3, and .944 for the total scale. They tested reliability for the 28 items included in this scale post data collection using Cronbach's alpha and demonstrated an alpha of $\alpha = .97$.

I employed the PNJSS by Yada et al. (2011) to evaluate job stress. It has confirmed reliability and validity. The Cronbach alpha coefficient ranged from 0.675 to 0.869 for each subscale and was 0.816 for the overall scale. In their study, Yada et al. tested reliability for the 22 items included in the scale post data collection using Cronbach's alpha and demonstrated an alpha of $\alpha = .93$.

Table 1

Psychometric Properties for the 4 Scales (N=109)

Scale	*n*	*M*	*SD*	Range	Cronbach's α
Job Satisfaction	2	7.5364	1.95677	2.00- 10.00	877
PES-NWI	31	89.9082	19.27986	31.00-124.00	.975
NPVS-3	28	110.4848	17.45570	76.00-140.00	.969
PNJSS	22	55.3663	15.42901	37.00-88.00	.932

Note. N =109. Practice Environment Scale of the Nursing Work Index = PES-NWI, Psychiatric Nurses Job Stress Scale = PNJSS, Nurses Professional Values Scale-3 = NPVS-3**.**

Study Results

The Demographics Characteristic

One hundred and nine nursing participants were actively working as RNs in inpatient psychiatric hospitals in the United States. The characteristics of the sample are displayed in Table 2. The majority (89%) of the participants were within ages 31–60

years (M = 44.16, SD = 5.29). Further results show that 32% of the participants have BSN as their highest educational status, with 6.4% having a diploma RN as the second highest, and 1.8% having a Ph.D. RN, the third highest. The highest nursing experience (above 20 years) is 20.2%, while the least nursing experience (below five years) is 11.0%. Finally, 49.5% of the participants specialize in acute adult nursing units, while 7.3% were in adult detox nursing units.

Table 2

Socio-Demographic of Participants

Baseline Characteristics	*n*	*%*
Age		
18-30	4	3.7
31-40	37	33.9
41-50	31	28.4
51-60	29	26.6
61-70	8	7.3
Educational Qualification RN		
Diploma	7	6.4
AA	25	22.9
BSN	35	32.1
MSN	32	29.4
DNP	8	7.3
PhD	2	1.8
Years of Nursing Experience		
Less than 5 years	12	11.0
5 - 10 years	35	32.1
11 - 15 years	26	23.9
16 - 20 years	14	12.8
Above 20 years	22	20.2
Unit Specialization		
Child/Adolescents Crisis Stabilization Unit	10	9.2
Acute Adult	54	49.5
Intermediate Adult	25	22.9
Adult Detox	8	7.3
Geropsychiatric	12	11.0

Comparison of Sample to Population

The participants in this study were RNs working in various inpatient psychiatric hospitals across the United States. It was impossible to determine the states that each RN originated from this population. According to the G Power software calculation, this study's sample size met the required sample population to demonstrate significance. There are more than 3.8 million RNs nationwide (Smiley et al., 2018). There are more

than 3.8 million RNs nationwide (Smiley et al., 2018). Of all licensed RNs, 13,500 nurses are psychiatric-mental health nurses and belong to the APNA's psychiatric nursing professional organization (APNA, 2015). The sample represented in this study, N = 109, was small compared to the total population of RNs working in inpatient psychiatric hospitals or the professional nursing organization, as reported by Smiley (2018).

Statistical Assumptions for Multiple Regression

There are several vital assumptions in multiple regression. Quantitative multiple regression analysis assumptions for this study include predictor and outcome (dependent) variables measured on continuous scales. Multiple regression correlates between the outcome variable's observed values and the outcome's values predicted by the multiple regression model (Field, 2018). I assessed each predictor variable and the outcome variable to determine whether there were linear relationships. Multiple regression assumes that the residuals are normally distributed (Laerd, 2015). Each variable is examined for normal distribution and considered for the regression's residuals for normal distribution. All variables were measured without error.

Another assumption is that the linear data would demonstrate homoscedasticity and not show multicollinearity (Laerd, 2015). This study's predictor variables included work environment, job stress, and professional identity, and job satisfaction was the dependent variable. The moderating variable included the selected demographic factor (years of experience). I evaluated all data obtained to ensure that I met the assumptions for the study. Independence of errors (autocorrelation) was not deemed a problem, each person only completed one survey, and the Durbin-Watson statistics were within normal limits. Research question one and research question two met the assumptions.

Outliners, Univariate Normality, and Multivariate Normality

Each variable should be normally distributed (Field, 2018). I ran box plots to check for univariate outliers and Mahalanobis distance to identify any multivariate outliers. Box plots show the range of scores and whether the distribution is symmetrical or skewed (Field, 2018). Mahalanobis distance measures a case's influence by examining the distance of cases from the means of the predictor variable(s) (Field, 2018). I did not identify any multivariate outliers within the selected nursing variables. I used data from the sample of $N = 109$ without modification.

Multicollinearity and Homoscedasticity

I did not find multicollinearity based on the variance inflation factor (VIF) statistics. VIF is a regression estimation coefficient to measure multicollinearity. It indicates whether a predictor has a strong linear relationship with other predictors (Field, 2018). I created regression assumption plots (residual histogram, residual P –P plots, a scatterplot of standardized regression residuals against the regression standardized predicted values) for the regression models to meet the homoscedasticity assumption.

Statistical Analysis Findings by Research Question

Research Question One

RQ1: To what extent did the work environment, job stress, and professional identity account for the variance of job satisfaction among psychiatric nurses? I formulated and tested the null and alternate hypotheses using multiple regression analysis to answer the above question.

Null Hypothesis ($H_0$1): None of the possible three predictor variables (work environment, job stress, and professional identity) would reliably predict job satisfaction among psychiatric nurses.

Alternative Hypothesis (H_a1): At least one of the possible three predictor variables (work environment, job stress, and professional identity) allows for the prediction of job satisfaction among psychiatric nurses.

I examined the three assumption plots supporting the multiple regression model. Results are presented in Figures 3-5. The relationship between the predictors (independent) and outcome (dependent) variables must be linear in a multiple linear regression (Filed, 2018). I used a histogram of residuals and a normal probability plot of residuals to evaluate whether residuals were approximately normally distributed. The standardized residuals regression frequency histogram approximated a marked normal distribution, with none of the standardized residuals having a z score of ± 3.00 (Figure 3). Therefore, the data met this assumption.

The P-P plot compares the observed cumulative distribution function (CDF) of the standardized residual to the expected CDF of the normal distribution (Field, 2018). The result showed that the regression standardized residuals' normal P-P plot clustered near the diagonal line, which met the criteria (Figure 4).

I used a scatterplot of residuals to check the third assumption of homoscedasticity. There should be no clear pattern in distribution (Field, 2018). However, this study's finding showed a nonrandom bivariate distribution of scores with an abundance of scores forming a line in the center of the plot, with less to hardly any scores in the plot's lower portion (Figure 5). Overall, the results met two of the three assumptions for multiple

regression for this model so that results interpretations might yield high external validity levels, albeit with a measure of caution.

The multiple regression model predicted job satisfaction among nurses based on the work environment, job stress, and professional identity is displayed in Table 3. The overall model was significant (p = .000) and accounted for 19.2% of the dependent variable's variance. Inspection of the beta weights found only work environment significantly predicts job satisfaction the p <.05 level. These findings provided support for the alternative hypothesis (see Table 3). The Alternative Hypothesis (H_a1): At least one of the possible three predictor variables (work environment, job stress, and professional identity) allows for the prediction of job satisfaction among psychiatric nurses.

Figure 3

Histogram of Standardized Residual

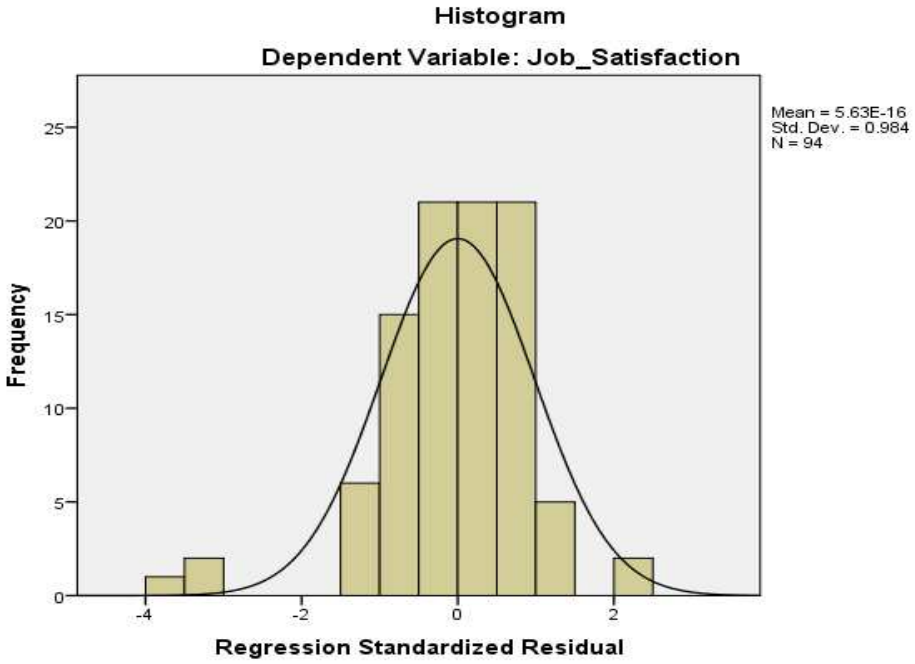


Figure 4

P-P Plot of Regression Standardized Residuals

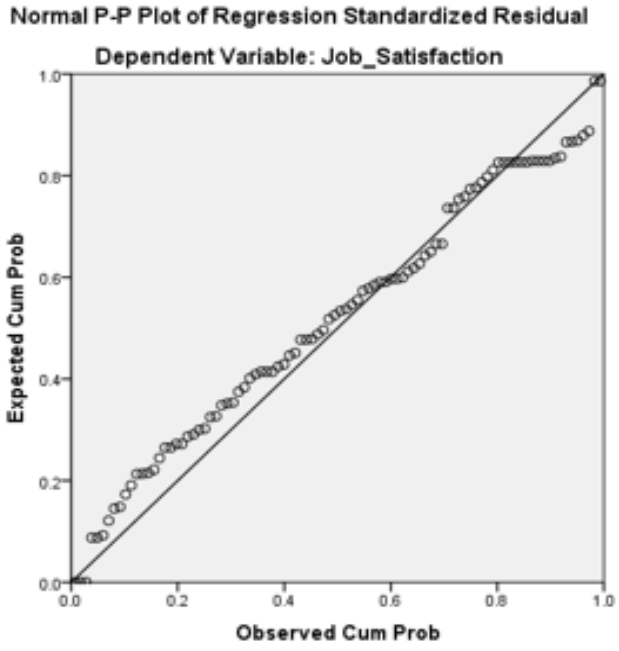


Figure 5

Scatterplot of Standardized Residuals and Standardized Predicted Values

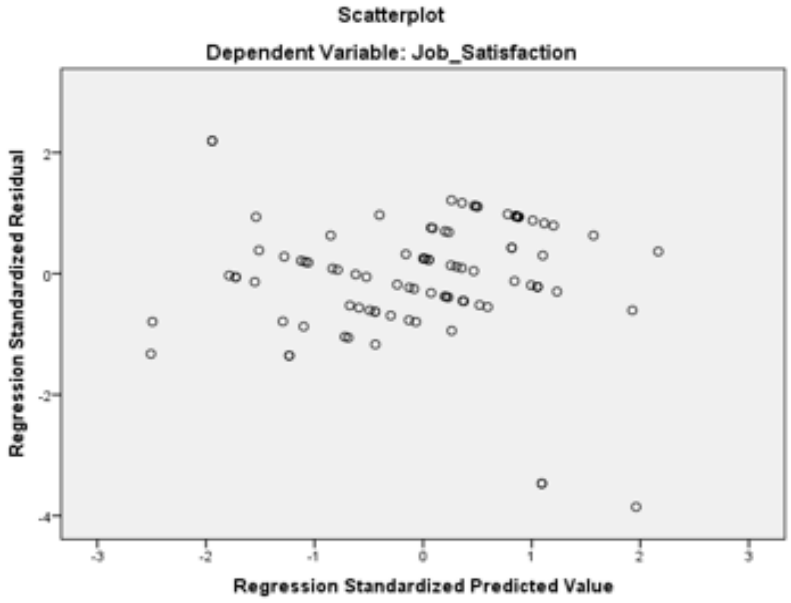


Table 3

Multiple Regression Model Predicting Job Satisfaction of Nurses Based on Work Environment, Job Stress and Professional Identity (N = 94)

Source	*B*	*SE*	*β*	*t*	*p*	*VIF*
Intercept	6.494	1.448		4.484	.000	
Work Environment	1.758	.420	.441	4.189	.000	1.235
Professional Identity	-.009	.011	-.078	-.795	.429	1.077
Job Stress	-.011	.014	-.082	-.780	.437	1.228

Note. Full Model: F (3, 90) = 7.148, p = .000. R^2 = .192.
Note. This table supports Research Question 1.

Research Question Two

Research Question 2 (RQ2): What was the moderating effect of demographic factors (years of experience) on the extent to which the work environment, job stress, and

professional identity account for the variance of job satisfaction among psychiatric nurses?

Null Hypothesis (H02): Demographic factor (years of experience) had no significant moderating effect on the relationship between work environment, job stress, professional identity, and job satisfaction among psychiatric nurses.

Alternative Hypothesis (Ha1): There was a significant moderating effect between demographic factors (years of experience) and job satisfaction, work environment, job stress, and professional identity among psychiatric nurses.

The multiple regression analysis via PROCESS macro is used to analyze the moderators' direct and conditional effects in a model (Field, 2018). I used PROCESS macro to examine RQ2. I presented regression assumption plots for this model and the results in Figures 6-14 and Tables 4-6. The frequency histogram of the regression residuals showed a marked normal distribution, which was excellent. This study's findings showed the normal P-P plot of the regression standardized residuals indicated a cluster near the diagonal line. However, not all the scatterplot of the regression standardized residuals against the regression standardized predicted value displayed an equal scatter of points, which was not ideal. In summary, the results met two of the three assumptions for multiple regression for this model so that results interpretations might yield high external validity levels, but with a measure of caution.

Results of the multiple regression model showing moderation effects of work experience on the relationship between work environment and job satisfaction showed that the interaction terms produced a non-significant impact (β=.0314; p>.05) and accounted for an insignificant change ($\Delta R2$=.0215; $F(1, 87)$=2.2076; p>.05) in job

satisfaction. Similarly, in the relationship between professional identity and job satisfaction, results showed that the interaction term produced a non-significant effect (β=.0385; p>.05) and accounted for an insignificant change ($\Delta R2$=.0294; F (1, 89) =1.8092; p>.05) in job satisfaction. Finally, effects of work experience on the relationship between job stress and job satisfaction also showed a non-significant effect (β=.0020; p>.05) and accounted for an insignificant change ($\Delta R2$=.0001; F (1, 90) =.0052; p>.05) in job satisfaction.

The results implied that work experience did not moderate the relationship between the predictor variables (work environment, job satisfaction, job stress), and job satisfaction. Based on the results, the alternative hypothesis was rejected, while the null hypothesis was accepted. The Null Hypothesis (H02) was demographic factor (years of experience) had no significant moderating effect on the relationship between work environment, job stress, professional identity, and job satisfaction among psychiatric nurses.

Figure 6

Regression Assumption Plots Supporting Table 4

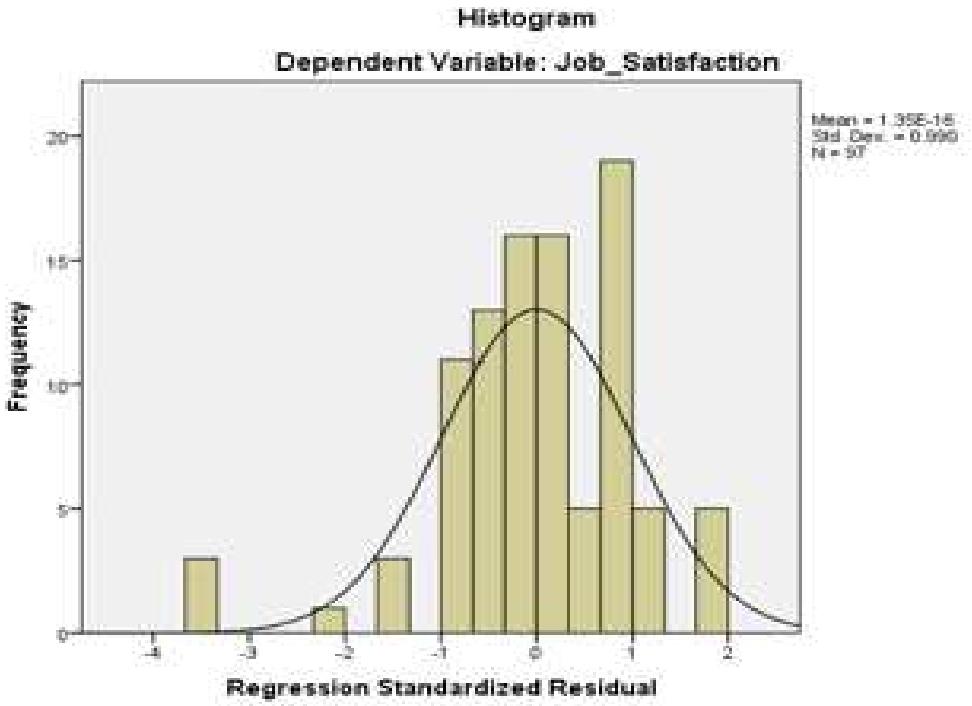


Figure 7

Normal P-Plot of Regression Standardized Residual Supporting Table 4

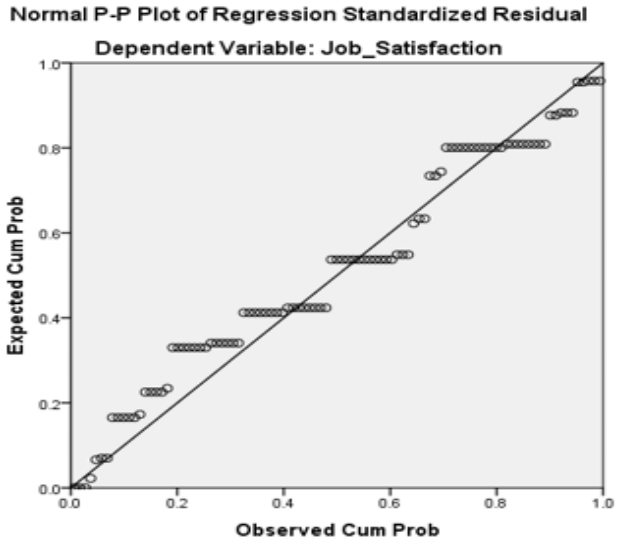


Figure 8

Scatterplot of Standardized Residuals and Standardized Predicted Value Supporting Table 4

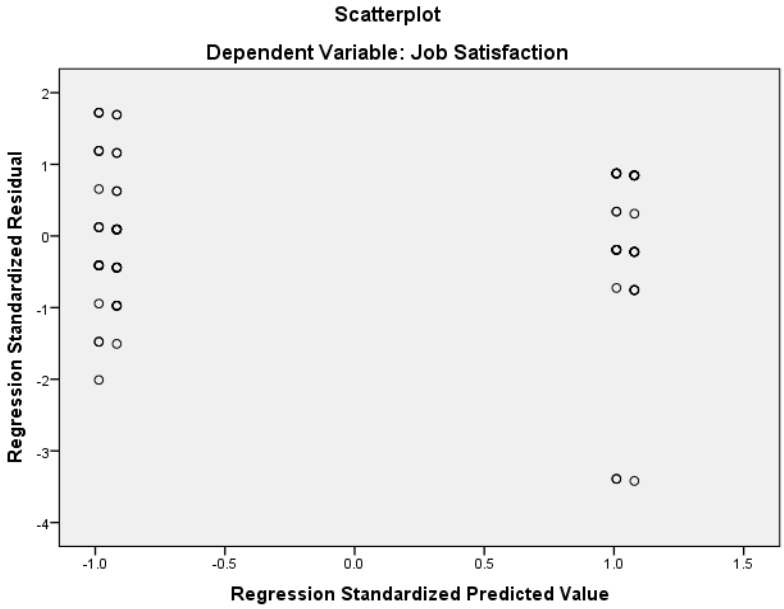


Table 4

Regression Model Showing Moderation Effects of Work Experience on the Relationship Between Work Environment and Job Satisfaction among Psychiatric Nurses

					95%CI	
	β	*SE*	*T*	*P*	*LLCI*	*ULCI*
Constant	8.6439	2.9684	2.9120	.0046	2.7439	14.5440
Work Environment (A)	-.0074	.0320	-.2312	.8177	-.0710	.0562
Work Experience (B)	-3.0908	1.9475	-1.5870	.1161	-6.9618	.7801
A x B (Interaction Term)	.0314	.0211	1.4858	.1409	-.0106	.0735

Note. Model Summary: R=.3905, R^2=.1525, $F_{(3, 87)}$=5.2183; p<.05
ΔR^2 due to interaction: ΔR^2=.0215, $F_{(1, 87)}$=2.2076; p>.05

Figure 9

Regression Assumption Plots Supporting Table 5

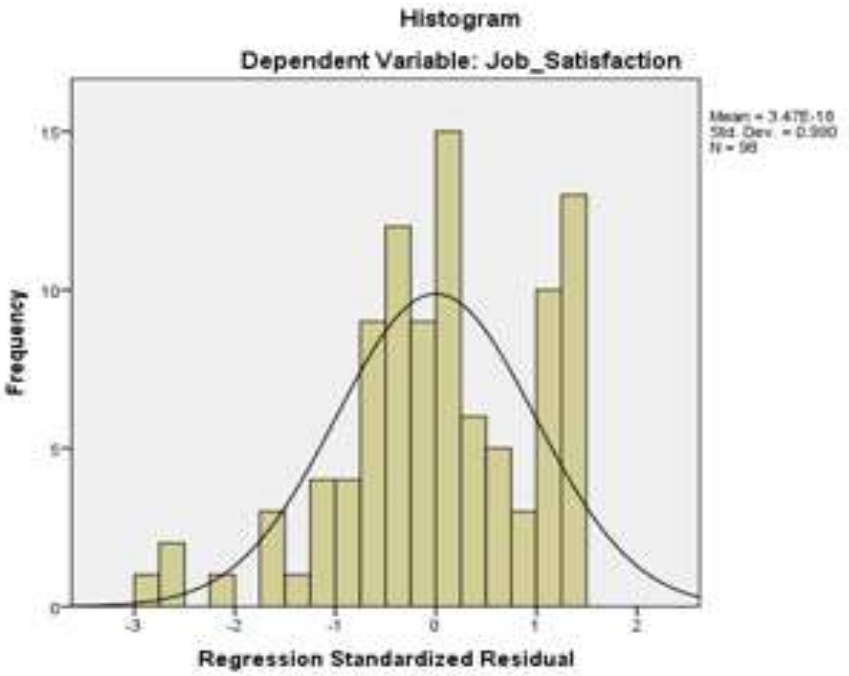


Figure 10

Normal P-Plot of Regression Standardized Residuals Supporting Table 5

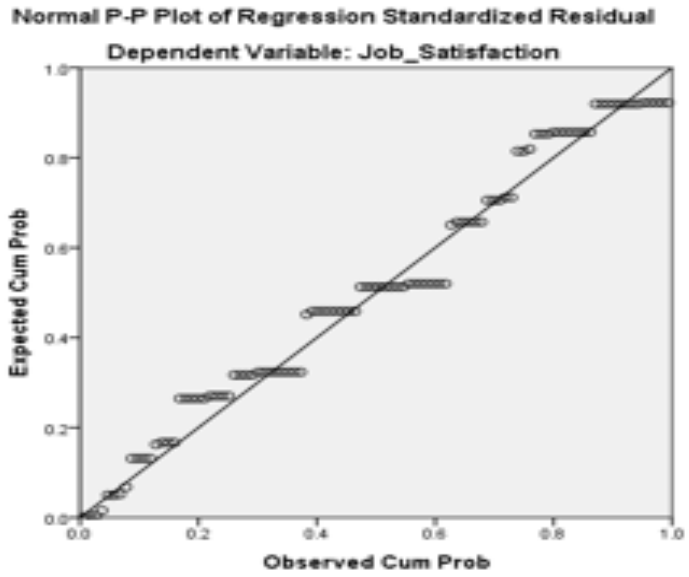


Figure 11

Scatterplot of Standardized Residuals and Standardized Predicted Values Supporting Table 5

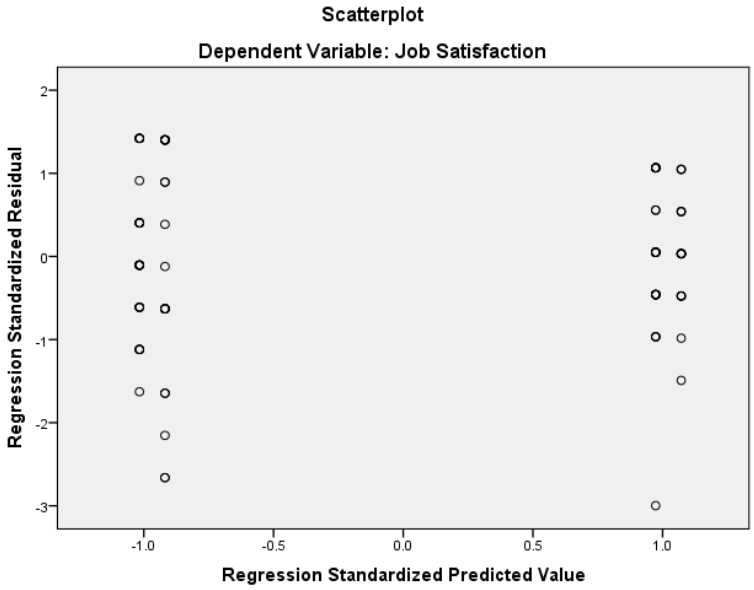


Table 5

Regression model showing moderation effects of work experience on the relationship between professional identity and job satisfaction among psychiatric nurses

					95%CI	
	β	*SE*	*T*	*P*	*LLCI*	*ULCI*
Constant	16.7320	4.0445	4.1370	.0001	8.6957	24.7683
Professional Identity (A)	-.0848	.0379	-2.2367	.0578	-.1602	-.0095
Work Experience (B)	-4.1778	2.4739	-1.6887	.0948	-9.0933	.7378
A x B (Interaction Term)	.0385	.0229	1.6857	.0954	-.0069	.0839

Note. Model Summary: R=.2802, R^2=.0785, $F_{(3, 89)}$ =2.5277; p >.05
ΔR^2 due to interaction: ΔR^2=.0294, $F_{(1, 89)}$ =1.8092; p >.05

Figure 12

Regression Assumption Plots Supporting Table 6

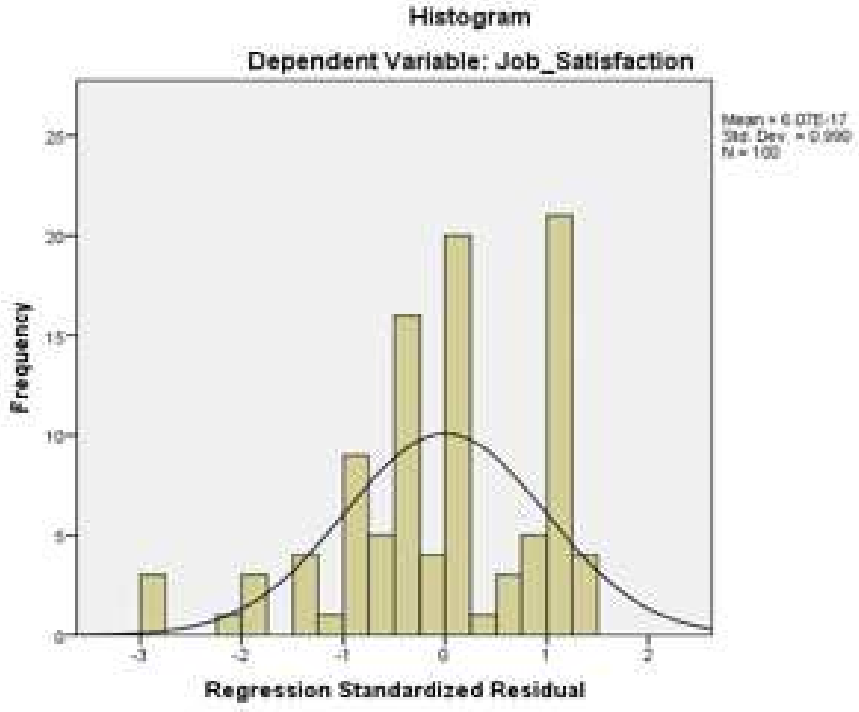


Figure 13

Normal P-Plot of Regression Standardized Residuals Supporting Table 6

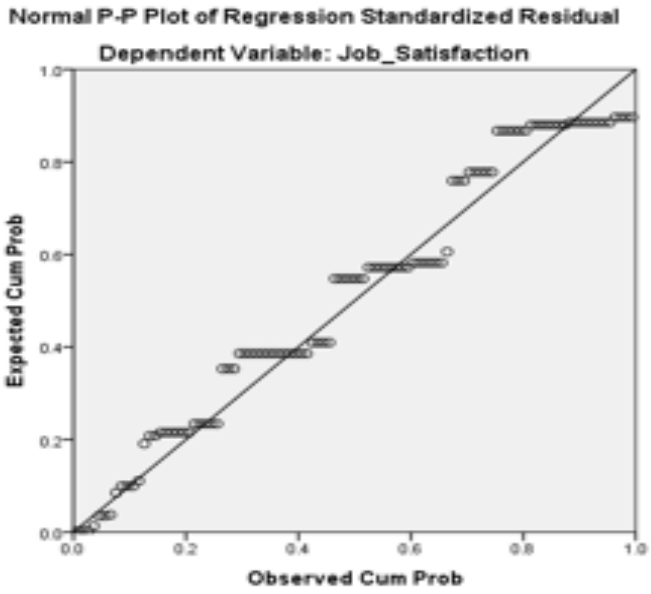


Figure 14

Scatterplot Standardized Residuals and Stadardized Predicted Values Supporting Table 6

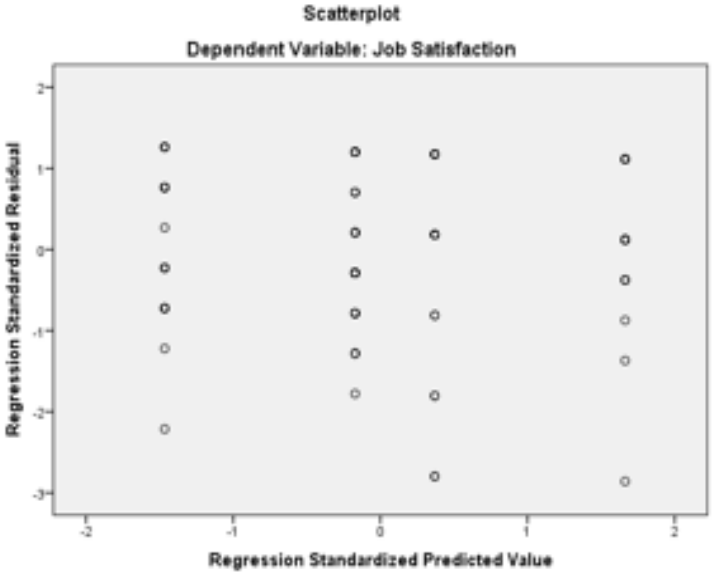


Table 6
Regression Model Showing Moderation Effects of Work Experience on the Relationship Between Job Stress and Job Satisfaction among Psychiatric Nurses

					95%CI	
	β	*SE*	*t*	*P*	*LLCI*	*ULCI*
Constant	7.2605	2.4494	2.9642	<.0039	2.3943	12.1266
Job Stress (A)	.0091	.0427	.2140	>.8311	-.0757	.0940
Work Experience (B)	-.1930	1.5507	-.1245	>.9012	-3.2737	2.8877
A x B (Interaction Term)	.0020	.0277	.0720	>.9427	-.0531	.0570

Note. Model Summary: R=.0982, R^2=.0096, $F_{(3, 90)}$=.2922; p >.05

ΔR^2 due to interaction: ΔR^2=.0001, $F_{(1, 90)}$=.0052; p >.05

Summary

I used one hundred and nine completed surveys for the analysis of this study. Based on the analysis outcomes, work environment, professional identity, and job stress had a significant joint predictive influence on job satisfaction and accounted for a significant variance of 19.2%. Further results showed that only the work environment emerged as a significant positive independent predictor of job satisfaction, while professional identity and job stress did not significantly predict job satisfaction. The results indicated that a more positive work environment was associated with higher job satisfaction levels. I rejected the null hypothesis stated and accepted the alternative hypothesis. Conclusive results from the analysis of research question two established that demographic factor (years of experience) did not significantly moderate the relationship between work environment, job stress, professional identity, and job satisfaction among

psychiatric nurses. Therefore, I accepted the null hypothesis. In the next chapter, I will interpret the findings, described the limitations, recommendations, and implications.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this nonexperimental, quantitative cross-sectional correlational study was to examine the relationship among work environment, job stress, professional identity, and job satisfaction for nurses working in inpatient psychiatric hospitals in the United States and to determine the moderating effect of demographic factor (years of experience) on the extent to which work environment, job stress, and professional identity account for the variance of job satisfaction.

This study's results revealed that the work environment, professional identity, and job stress have a significant joint predictive influence on job satisfaction and accounted for a significant variance of 19.2%. Further results showed that the work environment has a significant positive independent predictor of job satisfaction. In contrast, professional identity and job stress do not significantly predict job satisfaction. The study also showed that demographic factor (years of experience) has no significant moderating effect on the relationship between work environment, job stress, professional identity, and job satisfaction among psychiatric nurses. In this chapter, I will interpret the findings and describe the limitations, recommendations, and implications of the study.

Interpretation of the Findings

Comparison of Findings to Existing Literature

The first research question examined the extent to which the work environment, job stress, and professional identity account for the variance of job satisfaction among psychiatric nurses. The study results revealed that a more positive work environment was associated with higher job satisfaction levels. This significant positive association signified that the more positive the work environment, the higher the job satisfaction

level. These findings corroborated the assertion of Wang et al. (2015) that there was a strong positive correlation between job satisfaction and a favorable nursing practice environment.

Similarly, Albashayreh et al. (2015) found a positive correlation between work environment and job satisfaction. Similarly, their results revealed a positive correlation between work environment and job satisfaction among 454 hospital nurses from Oman. Intention to stay on a job, an index for job satisfaction, also emerged as a positive correlate of work environment among Jordan hospital nurses in AbuAlRub et al. 's (2016) study. The work environment was measured using some of the items from the Revised Nurse Working Index (NWI-R), and AbuAlRub et al. added additional ones based on nurses' work environment.

In other studies, by Al-Hamdan et al. (2017) and Aiken et al. (2008), the work environment and job satisfaction associations were examined among nurses; results indicated a positive association between nurses' job satisfaction and the nursing work environment. Al-Hamdan et al. (2017) used the PES□NWI to measure various aspects of nurses' work environments. They operationalized work environment based on five dimensions: nurse participation in hospital affairs, nurse foundations for quality care, nurse managers' ability and leadership and support of nurses, staffing and resource adequacy, and collegial nurse□physician relationships. Congruent to Al-Hamdan's, Aiken et al. (2009) used the PES-NWI to operationalize the work environment.

However, some contrary results abound in literature, such as job satisfaction negatively correlated with the work environment (Goh and Lopez, 2016). In their study, Goh and Lopez (2016) used the Practice Environment Scale–Nursing Work Index–

Revised (PES□NWI□R) to explore the work environment. They operationalized work environment using six domains: hospital affairs, quality of care, nurse manager's ability, staffing and resource adequacy, good nurse-physician relationships, and nursing information technology.

The second research question examined the moderating effect of work experience in the association of work environment, job stress, professional identity, and job satisfaction among nurses working in inpatient psychiatric hospitals. The analysis supported the null hypothesis, which indicated that demographic factor (years of experience) did not significantly moderate the relationship between work environment, job stress, professional identity, and job satisfaction among psychiatric nurses. This study's results revealed that the work environment, job stress, and professional identity on job satisfaction remained unchanged irrespective of nurses' years of experience.

These findings were contrary to the literature findings, showing the importance of work experience on job satisfaction and other related indices. Kim (2004) found that job experiences were significant in predicting job satisfaction. Job experiences were operationalized using job variety, job autonomy, job stress, and job feedback. Similarly, Dawal and Taha (2015) highlighted the significant influence of selected demographic factors, including work experience, on job satisfaction.

In Kim's study, the measures of job experience revolved around interval scales of job variety, job stress, and job feedback, while in in Dawal and Taha's study, they defined work experience as defined as years of experience measured on a continuum interval scale. However, in the current study, I defined work experience as the number of years worked and measured as a categorical variable. In each study, the

operationalization of the variable, work experience, differed. This disparity in work experience measures may have accounted for the contrasting results of this study with mainstream literature.

Comparison of Findings to Theoretical Framework

I used Herzberg's motivation-hygiene theory to investigate the relationship between the variables identified in the posed research questions. asserts that employees' job satisfaction depends on two factors: motivators and hygiene factors. Motivators are a set of job conditions that lead to strong motivation and job satisfaction while hygiene factors are not present in the actual job itself but are related to the job's environment (Herzberg et al., 1959, 2010). According to Herzberg (1959, 2010), the motivators are found in the actual job itself, and their presence causes employees to work harder; they include achievement, advancement, an opportunity for growth, recognition, the work itself, and responsibility. On the other hand, hygiene factors (such as salary, personal life, company policy and administration, technical supervision, job security, and interpersonal relationship) do not promote job satisfaction (Herzberg et al., 1959, 2010).

Based on these assumptions, I categorized motivators as professional identity and hygiene factors as job stress and work environment). Professional identity is nurses' perception of their careers based on belief experience or positive achievement like achieving a specific success such as seeing positive results of their careers (Herzberg et al. 1959; Herzberg, 1966; Alshmemri et al., 2017; Kabeel & Eisa, 2017; Rasmussen et al., 2018). The working environment is factors involved in the physical surroundings of the job it includes include the amount of work, space, ventilation, tools, temperature, and safety (Herzberg et al. 1959; Herzberg, 1966). Job stress is an individual response to

external stimuli in the environment (Deng et al., 2019). According to Herzberg's, company policies and administration involves good or poor organizational policies that affect the employee. These policies are external stimuli in the environment, and they may include a lack of delegation of authority, inadequate policies and procedures, and poor communication (Herzberg et al. 1959; Herzberg, 1966).

The results obtained in this study differed from Herzberg's two-factor theory's assumptions. Based on the theory's tenets, I expected that professional identity would have a significant positive effect on job satisfaction among the study participants; but I did not observe no significant influence in this study. In addition, the work environment, which, according to Herzberg's theory, was expected not to contribute to job satisfaction, emerged as a significant predictor of job satisfaction among the nurses. This study's outcomes provide theoretical perspectives that hygiene factors may contribute to job satisfaction among today's employees.

Limitations of the Study

I identified four limitations in this study. First, the generalization of this study's results was limited. I recruited the study's participants using a homogeneous convenience sample of RNs who work in inpatient psychiatric hospitals. The study's findings implied that participants were recruited based on their choice to respond to the recruitment flyers, which might not represent all nurses working in inpatient psychiatric hospitals. The estimates derived from convenience samples are often biased because convenience samples' generalizability is unclear (Jager et al., 2017).

Second, a correlation design's choice limited this study to establish cause-effect relationships. Third, as determined by Faul et al.'s G*Power analysis, the sample size

was relatively small and might reduce external validity outcomes. Thus, I made inferences and generalizations based on the study outcomes with caution. Finally, self-report measures introduced the possibility of biased responses resulting from the effects of social desirability.

Recommendations

I proposed the following three recommendations based on the study findings. In this study, I considered the work environment as a hygiene factor and it contributed to job satisfaction. This differed from Herzberg's two-factor theory's assumption that hygiene factors did not promote job satisfaction. Further studies are needed to determine if the findings in this study could be replicated. Job stress and professional identity did not have a significant positive independent relationship with job satisfaction in this study. Conducting studies with larger sample sizes might identify different findings.

Years of experience was not a moderating factor between work environment, job stress, professional identity, and job satisfaction. This finding was contrary to the literature findings that identified a positive relationship between work experience and job satisfaction. The operational definition of work experience differed in each of the studies in the literature. Replicating similar studies with different operational definitions of years of experience may yield different results.

Implications

Positive Social Change

This study's findings have the potential for positive social change for three groups, nurses, healthcare organizations, and patients. Job satisfaction is an essential issue in any organization (Matsumoto & Yoshioka, 2019, Mousazadeh et al., 2019). The

study's result showed that the work environment, professional identity, and job stress had a significant joint predictive influence on job satisfaction and accounted for a significant variance of 19.2%. The work environment emerged as a significant positive independent predictor of job satisfaction. A positive work environment has the potential to reduce the turnover rate, increase efficiency and the quality of care provided to the patients.

Investigating the extent to which job satisfaction among psychiatric nurses was influenced by job stress, work environment, and professional identity alerted nurses to factors that influenced their job satisfaction and helped facilitate the nurses' satisfaction within their profession. A positive work environment positively increased job satisfaction among the nurses in this study. A positive work environment can reduce the turnover rate, increase efficiency and the quality of care provided to the patients. The findings could also be used by healthcare administration to develop policies and procedures to build an empowering work environment that helps to retain their workforce and decrease the financial cost associated with hiring, orientating new psychiatric nurses.

Significance to Research

This finding is an original contribution to nursing research. It is the first study that examined the relationship between job satisfaction, work environment, job stress, and professional identity among RNs working in inpatient psychiatric hospitals in the United States. Understanding the extent to which the work environment influenced job satisfaction, job stress, and professional identity would alert RNs them to factors that influence their job satisfaction. It would also proactively help develop approaches that decrease the adverse effects and facilitate the nurses' satisfaction within their profession. In turn, these activities would help reduce turnover rate, increase efficiency, and provide

the quality of care to the patients with the potential for positive patient outcomes. Examining years of experience as a moderator did not affect the relationship between the predictor variables (the work environment, job stress, and professional identity) and the outcome variable (job satisfaction) among psychiatric nurses. However, further studies are needed to identify if there are other mediating or moderating variables that my influence the relationship between these factors.

Significance to Nursing Practice

Today, the impact of job satisfaction is critical to the quality-of-service delivery in the health care sector because the individual's level of satisfaction in their chosen career determines their commitment to service delivery (Lasebikan et al., 2020). In boosting nurses' job satisfaction levels, nursing management of various organizations has often focused on increasing financial remunerations and introducing financial rewards as motivational factors (Baljoon et al., 2018). However, this study's outcomes have revealed the importance of the work environment in predicting job satisfaction among RNs working in inpatient psychiatric hospitals.

A work environment that is cognitively stimulating, physically attractive, mutually harmonious, and stress-free will positively improve job satisfaction and have the potential to impact the care provided to their patients positively. Therefore, nursing administrators should increase their focus on developing strategies to encourage nurses to strengthen their work environments. They should help develop policies and procedures to build an empowering work environment that helps to retain their workforce and decrease the financial cost associated with hiring, orientating new psychiatric nurses.

Conclusion

The working environment is one of the most important factors influencing job satisfaction (Agbozo et al., 2017; Salunke, 2015). Promoting a positive working environment is vital for employees' job satisfaction because individuals stay committed to the organization (Raziq & Maulabakhsh, 2015). This study suggested a more comprehensible understanding that the work environment, professional identity, and job stress had a significant joint predictive influence on job satisfaction. Although the work environment had a significant positive independent predictor of job satisfaction, future studies future studies are needed to determine if job stress and professional identity can independently predict job satisfaction in inpatient psychiatric hospitals. In addition, years of experience did not significantly moderate the relationship between the predictor and outcome variables. Future studies are necessary to determine if years of experience can be operationalized using other variables. Therefore, using this study could help develop nursing policies to promote a positive work environment for RNs, increase job satisfaction, and increase retention. In conclusion, to increase psychiatric nurses' job satisfaction levels, hospital administrators' support may need to provide working environments that promote nurses' retention rates, job satisfaction, increase positive patient outcomes, and reduce turnover costs. Individual nurses' increased job satisfaction levels may also prevent them from leaving their jobs.

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Appendix A: Demographic and Job Satisfaction Questionnaire

There are two sections to this questionnaire. The first section asks demographic information related to you. The second section asks two questions about your satisfaction with your job.

Demographic Questions

Please respond to questions 1-7 by placing the **letter** that corresponds to your choice in the blank space provided.:

1. Please choose the age group that more closely represent your age_____

a. 18-30

b. 31-40

c. 41-50

d. 51-60

e. 61-70

f. 71 and above

2. What is your highest degree in nursing? _____

a. LPN

b. Diploma RN

c. AA RN

d. Bachelor Prepared RN

e. MS Prepared RN

3. How many years of experience do you have as an RN? _____

a. 6months-5 years

b. 5 to10 years

c. 10 to15 years

d. 15 to 20 years

e. over 20 years

4. How many years have you worked as an RN in an inpatient psychiatric hospital psychiatric nursing? _____

a. 6 months-10

b. 5-10

c. 10-15

d. 15-20

e. over 20

5. What unit do you specialize in at the inpatient psychiatric hospital? _____

a. Child/Adolescents Crisis Stabilization Unit

b. Acute Adult

c. Intermediate Adult

d. Adult Detox

e. Geropsychiatric

Job Satisfaction.

The following two questions refer to your satisfaction with your job. Please choose the letter that corresponds to your level of satisfaction in the blank space provided for **questions 6 and 7** based on the following:

a. Very Dissatisfied

b. Dissatisfied

c. Somewhat satisfied

d. Satisfied

e. Very satisfied

6. Considering everything, how satisfied are you with your job? _____

7. Considering everything, how satisfied are you with your organization?

   _____

Appendix B: The Practice Environment Scale-Nursing Work Index

Dear Participant,

The following survey items are related to nurses' work environment. For each item, please indicate the extent to which you agree that the item is present in your current job. Please note the degree of agreement by circling the appropriate number. For each question, 1: Strongly agree, 2: Agree, 3: Disagree, 4 Strongly disagree.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Adequate support services allow me to spend time with my patients.	1	2	3	4
2. Physicians and nurses have good working relationships	1	2	3	4
3. A supervisory staff that is supportive of the nurses.	1	2	3	4
4. Active staff development or continuing education programs for nurses.	1	2	3	4
5. Career development/clinical ladder opportunity.	1	2	3	4
6. Opportunity for staff nurses to participate in policy decisions.	1	2	3	4
7. Supervisors use mistakes as learning opportunities, not criticism.	1	2	3	4
8. Enough time and opportunity to discuss patient care problems with other nurses	1	2	3	4
9. Enough registered nurses to provide quality patient care.	1	2	3	4
10. A nurse manager who is a good manager and leader.	1	2	3	4
11. A chief nursing officer who is highly visible and accessible to staff	1	2	3	4
12. Enough staff to get the work done	1	2	3	4
13. Praise and recognition for a job well done.	1	2	3	4
14. High standards of nursing care are expected by the administration	1	2	3	4
15. A chief nursing officer equal in power and authority to other top-level hospital executives	1	2	3	4
16. A lot of teamwork between nurses and physicians.	1	2	3	4
17. Opportunities for advancement.	1	2	3	4

18. A clear philosophy of nursing that pervades the patient care environment.	1	2	3	4
19. Working with nurses who are clinically competent.	1	2	3	4
20. A nurse manager who backs up the nursing staff in decision making, even if the conflict is with a physician.	1	2	3	4
21. Administration that listens and responds to employee concerns.	1	2	3	4
22. An active quality assurance program.	1	2	3	4
23. Staff nurses are involved in the internal governance of the hospital (e.g., practice and policy committees).	1	2	3	4
24. Collaboration (joint practice) between nurses and physicians.	1	2	3	4
25. A preceptor program for newly hired RNs	1	2	3	4
26. Nursing care is based on a nursing, rather than a medical, model.	1	2	3	4
27. Staff nurses have the opportunity to serve on hospital and nursing committees.	1	2	3	4
28. Nursing administrators consult with staff on daily problems and procedures	1	2	3	4
29. Written, up-to-date nursing care plans for all patients.	1	2	3	4
30. Patient care assignments that foster continuity of care, i.e., the same nurse cares for the patient from one day to the next.	1	2	3	4
31. Use of nursing diagnoses.	1	2	3	4

Source: Lake, E. T. (2002). Development of the practice environment scale of the nursing work index. *Research in Nursing & Health*, *25*(3), 176-188. https://doi.org/10.1002/nur.10032

Appendix C: Nurses Professional Values Scale-3

Dear Participant,

The following survey items are related to nurses' professional identity. There are no right or wrong answers. Please choose the answer that best matches your response by placing an "X" in the column to the right. A = Not Important, B = Somewhat Important, C = Important, D = Very Important, E = Most Important.

Nurses Professional Values Scale-Three (NPVS-3) ©	A	B	C	D	E
1. Engage in on-going self-evaluation.					
2. Respect the inherent dignity, values, and human rights of all individuals.					
3. Protect health and safety of the patient/public.					
4. Assume responsibility for personal well-being.					
5. Participate in peer review.					
6. Establish standards as a guide for practice.					
7. Promote and maintain standards where planned learning activities for students take place.					
8. Initiate actions to improve environments of practice.					
9. Seek additional education to update knowledge and skills to maintain competency.					
10. Advance the profession through active involvement in health–related activities.					
11. Recognize the role of professional nursing associations in shaping health policy.					
12. Establish collaborative partnerships to reduce healthcare disparities.					
13. Assume responsibility for meeting health needs of diverse population.					
14. Accept responsibility and accountability for					
15. protect moral and legal rights of patients.					
16. Act as a patient advocate.					
	A	B	C	D	E

17. Participate in nursing research and/or implement research findings appropriate to practice.					
18. Provide care without bias or prejudice to patients and populations.					
19. Safeguard patient's right to confidentiality and privacy.					
20. Confront practitioners with questionable or inappropriate practice.					
21. Protect rights of participants in research.					
22. Practice guided by principles of fidelity and respect for person.					
23. Actively promote health of populations.					
24. Participate in professional efforts and collegial interactions to ensure quality care and professional satisfaction.					
25. Promote mutual peer support and collegial interactions to ensure quality care and professional satisfaction.					
26. Take action to influence legislators and other policy makers to improve health care.					
27. Engage in consultation/collaboration to provide optimal care.					
28. Recognize professional boundaries.					

Source: Weis, D., & Schank, M. J. (2017). Development and psychometric evaluation of the nurses' professional values scale -3. *Journal of Nursing Measurement*, *25*(3), 400-410. https://doi:10.1891/1061-3749.25.3.400

Appendix D: The Psychiatric Nurse Job Stressor Scale (PNJSS)

Dear Participant,

These questions measure the stress of psychiatric nurses. Please choose the answer that best matches your response by placing an "X" in the column to the right. There are no right or wrong answers. 0= Never; 1= Rarely; 2= Sometime; 3= Often; 4= Always.

The Psychiatric Nurse Job Stressor Scale (PNJSS)	0	1	2	3	4
Psychiatric Nursing Ability (9 Items)					
1.I think that I can nurse and correspond as the case requires [+]					
2. I think that I can explain the nursing that I am doing [+]					
3. I think that I have psychiatric nursing ability [+]					
4. I think that my experience has been made use of on the job [+]					
5. I feel that my role as a nurse is well-defined [+]					
6. I think that I understand the patients [+]					
7. I think that I can express my opinion in front of others [+]					
8. I think that I have knowledge about the laws, the institutions and the policies necessary for nursing [+]					
9. I feel that the direction my nursing is advancing in is not clearly defined					
Attitude of Patients (6 items)					
10. I feel that patients are negative about me					
11, I feel that there are patients who have an unpleasant attitude toward me					
12. I feel that there are patients who are threatening and make me afraid					
13. I feel that I might get entangled in patients' behavior					
14. I feel that I am pressured by patients' demands					

	0	1	2	3	4
15. I feel that patients make impossible demands on me					
Attitude toward Nursing (5 items)					
16. I feel that there is a difference between the philosophy of the institution and the reality					
17. I feel that there is the gap between my ideal and actual nursing					
18. I feel that there is difference among nurses in the way of thinking about of nursing					
19. I feel that I have a difference of opinion with my superior					
20. I feel that I can do integrated nursing [+]					
Communication (2 items)					
21. I think it is difficult to communicate with the family of patients					
22. I think it is difficult to communicate with patients					

Source: Yada, H., Abe, H., Funakoshi, Y., Omori, H., Matsuo, H., Ishida, Y., & Katoh, T. (2011). Development of the psychiatric nurse job stressor scale (PNJSS). *Psychiatry and Clinical Neurosciences*, *65*(6), 567–575. https://doi-org.ezp.waldenulibrary.org/10.1111/j.1440-1819.2011.02258.x

Reversal items [+]

Appendix E: Thank you Letter.

Dear Participant,

I want to thank you for the time, effort, and input towards my research study. Your participation is valuable to understand the relationship between the work environment, job stress, professional identity, and job satisfaction among nurses working in inpatient psychiatric hospitals in the United States; and, in determining the moderating effect of demographic factor (years of experience) on the extent to which work environment, job stress, and professional identity account for the variance of job satisfaction.

Please be informed that your input may help healthcare administration to develop policies and procedures that may create better support services and work environments for individual nursing practices. Your contribution will also promote results to identify satisfaction and critical dissatisfaction issues among psychiatric nurses. You are now to a separate form where you will provide the email address where you want your e-gift card to be delivered. Your response will remain anonymous as the reward delivery email address is not part of the survey, and I will not have access to your email address.

Again, thank you for your support of the study.

Best regards,

Tosin Rabiu-Akewusola

Walden University doctoral candidate

Appendix G: Thank you Letter (Paid pool participants Survey Monkey®)

Dear Participant,

I want to thank you for the time, effort, and input towards my research study. Your participation is valuable to understand the relationship between the work environment, job stress, professional identity, and job satisfaction among nurses working in inpatient psychiatric hospitals in the United States; and, in determining the moderating effect of demographic factor (years of experience) on the extent to which work environment, job stress, and professional identity account for the variance of job satisfaction.

Please be informed that your input may help healthcare administration to develop policies and procedures that may create better support services and work environments for individual nursing practices. Your contribution will also promote results to identify satisfaction and critical dissatisfaction issues among psychiatric nurses.

Again, thank you for your support of the study.

Best regards,

Tosin Rabiu-Akewusola

Walden University doctoral candidate

Appendix H: Permission to Use the Practice Environment Scale-Nursing Work Index

[redacted]
Sun 6/9/2019 9:17 PM

Dear Ms. Rabiu-Akewusola,

Yes, I give my permission for use of the instrument, as well as reproduction in your dissertation appendix, but not for modifying/adapting questions. I find that when researchers modify the items/instrument, it is no longer fully comparable. However, you may certainly do as you and your advisors deem appropriate. Note that the instrument has been tested in inpatient psychiatric nurses previously. See below:
Measuring inpatient psychiatric environments: psychometric properties of the Practice Environment Scale-Nursing Work Index (PES-NWI).
(PMID:17682592)
The International Journal of Psychiatric Nursing Research [01 May 2007, 12(3):1521-1528]

Abstract
Reliable and valid instruments are needed for evaluating complex inpatient psychiatric environments where psychiatric nurses work and patients get better. The Practice Environment Scale of the Nursing Workforce Index (PES-NWI) is an instrument commonly used in outcomes research to measure constructs of the practice environment. However, psychometric properties of the PES-NWI have not been tested in a psychiatric nurse population. This paper examines the psychometric properties of the PES-NWI using a sample of hospital based psychiatric registered nurses. The objective was to confirm the usefulness of the PES-NWI subscales to describe psychiatric inpatient nurse practice environments and generate reference values. Once established, researchers and administrators may use the PES-NWI to standardize the evaluation of inpatient psychiatric environments. Reference values could also be a tool for managers to target needed quality improvements and measure progress toward change in clinical environments.

I am copying our administrative coordinator, Ms. Andrea Barol, who will reply with the instrument and related resources.

Warm regards,

[redacted]

Appendix I: Permission to Use Practice the Nurses Professional Values Scale-3

[redacted]>
Sent: Monday, December 16, 2019 9:23 AM
To: Tosin Rabiu-Akewusola
Subject: FW: NPVS instrument

Dear Tosin Rabiu-Akewusola,

Thank you for your interest in our work on professional values.

Our article, as well as The Nurses Professional Values Scale (NPVS-3) are enclosed. You have our permission to use the NPVS-3 in your proposed research. We are requesting persons who use the NPVS-3 to provide the following at the completion of the research:

An abstract of your research findings using the NPVS-3 which includes a description of the sample.

Our most recent publication regarding the NPVS-3 can be found in the Journal of Nursing Measurement:

Weis, D., & Schank, M.J. (2017). Development and Psychometric Evaluation of the Nurses Professional Values Scale-3. *Journal of Nursing Measurement*, 25(3), 400-410.

Best wishes for success with your research.

Sincerely,

Appendix J: Permission to the Psychiatric Nurse Job Stressor Scale

Sun 5/19/2019 9:49 PM

Dear Tos Rabiu-Akewusola

Thank you for your interest.

I understand your following requirements.

I give you permission to use the pnjss.

I hope your good work.

[redacted]