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Nursing Turnover Based on Age, Race, and Gender in Community Hospitals in Michigan

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This is to certify that the doctoral study by

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Walden University
2025

Abstract

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MS, Liberty University, 2018

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Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Healthcare Administration

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Abstract

Hospitals struggle to maintain nursing staff to meet patient needs for a population that requires continuous care and experiences multiple illnesses. The purpose of this quantitative study was to investigate the variations in reasons for leaving the nursing profession (dependent variable) based on age, race, and gender (independent variables) within community hospitals in Michigan. The theoretical framework for this study was the Nursing Neuman Systems Model, which posits that nursing comprises four key components: environment, individual, nursing practice, and health. A correlational research design was utilized to address the research question and analyze the relationships between the variables. The secondary data were obtained from the Michigan Annual Nurse Survey Project for the year 2023. A binary logistic regression analysis was used to analyze the data for each reason provided for leaving the nursing profession. Study findings showed that gender influenced some reasons nurses chose to leave the profession, but race was a more significant factor. Age influenced nurses leaving in categories one would expect, such as for retirement or in younger nurses for pursuing higher educational endeavors. Several reasons given for leaving were found to be significant in all three variables of age, race, and gender. This study provided a detailed guide for healthcare administrators to examine the trends affecting nurses' decisions to leave the profession. The study identified factors related to age, race, and gender that contribute to the development of workplace practices aimed at supporting positive social change.

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Dedication

I would like to dedicate this study to my family and close friends, who have consistently pushed me to keep going and to always reach for my dreams in every aspect of life.

Acknowledgments

I would like to thank my parents, who have supported me through each step of my academic endeavors with their constant love and encouragement. I would like to give a special shout-out to my friend, Emily, and my sister, Whitney, who have always encouraged me to keep going and offered so much assistance and encouragement along the way. I am thankful for the staff of Walden University, specifically Dr. Ross and Dr. Bewley, who have been so helpful in getting me to the finish line. Dr. Ross has been instrumental in pushing me and challenging me to keep going when I was not sure I had the stamina to continue. Without all this help and support, I would not be here today. I appreciate all of them for contributing to this undertaking!

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Section 1: Foundation of the Study and Literature Review

Introduction

Experts predict that there will be a substantial nursing shortage in the coming years due to an excessive number of nurses aging out of the workforce and not enough new nurses entering the workforce. Many nurses are aging out of the workforce, while others are leaving due to environmental factors, such as stress, overworking, and burnout. According to the National Healthcare and RN Retention Report, the nursing turnover rate was 16.4% in 2014 and 17.1% in 2016 and is expected to climb in the coming years (Fisher et al., 2016). On a national level, the nursing turnover rate averaged 19.1% in 2020, and the nursing vacancy rate was 8% (Lockhart, 2020). It was predicted that by 2025, the shortage of nurses nationwide might be higher than 500,000 (Tamata & Mohammadnezhad, 2023). Thus, healthcare leaders must seriously consider effective ways to deal with the upcoming shortage.

The healthcare industry cannot simply focus on introducing new nursing graduates into the workforce without also stressing the importance of addressing issues of the retention of currently employed nurses, as an influx of new workers will not produce a change dramatic enough to combat the overall shortage (Ferren, 2023). There are specific aspects related to turnover in the nursing field that may help to shed light on the growing shortage and point towards possible solutions. Age, race, and gender are all factors that can be studied in regard to common trends as related to nursing turnover.

When themes of turnover in the nursing field are delineated, healthcare leaders can work towards finding efficient resolutions moving forward.

Background

The nursing shortage affects the outcome of patient care on a global scale (Alharbi et al., 2020). A study conducted in Saudi Arabia detected that poor working conditions, such as long hours and heavy workloads, played integral roles in high nursing turnover rates and low numbers of new nursing school graduates (Alharbi et al., 2020). Various studies have demonstrated a strong relationship between the work environment of nurses and employee satisfaction, burnout, and intent to leave.

Because of the impending nursing staff shortage, hospital leaders realize that they must search for innovative methods for increasing retention of their skilled nurses. Some potential strategies include the maintenance of a healthy work environment, emphasis on professional development, and increased recognition for accomplishments (Fisher et al., 2016). A major issue related to the retention of nurses is that they feel they are not trusted, specifically when they are left out of important decision-making discussions (Ferren, 2023). Transparent communication, listening to employee complaints, and debriefing about impending changes in the workplace all help to increase satisfaction in nurses (Ferren, 2023). Stress in the workplace, burnout, and moral distress all largely contribute to nurses leaving the profession. Studies show that a lack of resources and an inadequate number of staff lead to emotional exhaustion and low job satisfaction in the nursing field (Alharbi et al., 2020). To combat this, some nursing schools have offered additional training and classes, such as nurse residency programs, to help ensure that their graduates will remain in the field after graduation (Asber, 2019). Graduate transition programs have also demonstrated possible solutions for decreasing burnout and

increasing the retention of nurses (Lockhart, 2020). There are various reasons that nurses are leaving the profession, and many studies have pinpointed some of these reasons.

Many strategies focus on nurse leader behavior as a means of improving employee satisfaction and retention, as studies have indicated a positive correlation between the two factors (Fisher et al., 2016). Although 84.8% of healthcare organizations recognize retention as a primary area requiring strategy improvement, their operational planning target goals do not always reflect a proper emphasis on the remediation of this issue (Fisher et al., 2016). More research is necessary to help delineate effective ways to approach this issue.

Problem

The specific research problem that was addressed was how age, race, and gender are related to the turnover of skilled nurses in Michigan community hospitals and how these issues affect the retention of nurses. On a national level, the nursing turnover rate averaged 19.1% in 2020, and the nursing vacancy rate was 8% (Lockhart, 2020). Many experts claim that the nursing staff shortage will dramatically increase in the coming years as numerous employees age out of the workforce or leave the field for other reasons. The healthcare industry cannot merely place all its efforts on attracting new students to the field of nursing without also addressing the dissatisfaction and high turnover rates of current nurses in the workforce (Ferren, 2023).

According to Mutisya (2019), one of the greatest responsibilities of healthcare administrators is to correctly delineate the adequate number of nurse staffing required to ensure patient safety. Burnout is a primary complaint among nurses, as they are often

overworked and mentally taxed due to a lack of adequate staffing (Griffiths et al., 2020). It is imperative that healthcare leaders understand the trends of how age, race, and gender influence hiring practices and what trends tend to drive the staffing of hospitals. A full understanding of the various factors at play in the hiring and retention of skilled workers will help to predict the outlook of the nursing workforce more accurately. Once the trends and issues surrounding turnover are more fully comprehended, then the healthcare administrators can better work to successfully build their healthcare teams and overcome impending shortages.

Although researchers have investigated nursing turnover, there is very little or no literature on the issues surrounding the topic of retaining skilled nurses in Michigan community hospitals. While many experts predict that an increase in workforce shortages is imminent, there are not many available sources stating ways in which this problem should be managed. According to Mutisya (2019), the nursing shortage is a nationally recognized issue and undermines the overall efficacy of many health systems. There is a major link between adequate nursing staff numbers and positive patient health outcomes (Mutisya, 2019). Further study is needed to solidify the various ways in which the aging generation of nurses could remain in the workforce. This would allow for their expertise to still be utilized in the nursing field, while also allowing the aging workforce to partake in tasks that are less physically draining.

Many topics surrounding the nursing workforce shortage have not been fully studied, including adequate staffing ratios, leadership, and mental and physical wellness of nurses (Whittaker et al., 2018). If trends in hiring practices related to age, race, and

gender are more fully pinpointed, it will help healthcare administrators to better equip their facilities with adequate nursing staff.

Purpose

The purpose of this quantitative study was to examine the differences in reasons for leaving nursing (dependent variable) based on age, race, and gender (independent variables) in Michigan community hospitals. If the trends related to hiring practices in Michigan hospitals are more fully realized, then healthcare administrators can make more informed decisions when working to combat the impending nursing shortage. The independent variables were age, race, and gender. The dependent variables were reasons for leaving nursing or planning to leave nursing.

Research Question and Hypotheses

RQ 1: Is there a statistically significant difference in the Michigan Annual Nurse Survey results for "reasons to leave the nursing profession" based on age (18–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75+), race (Black, White, multiracial, Asian, American Indian/Alaska Native, other, unknown), and gender (male, female, gender nonbinary, nonconforming, genderqueer, transgender) in Michigan community hospitals for the year 2023?

Ho1: There is no statistically significant difference in the Michigan Annual Nurse Survey results for "reasons for leaving nursing the nursing profession" based on age (18–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75+), race (Black, White, multiracial, Asian, American Indian/Alaska Native, other, unknown), and gender

(male, female, gender nonbinary, nonconforming, genderqueer, transgender) in Michigan community hospitals for the year 2023.

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Theoretical Foundation

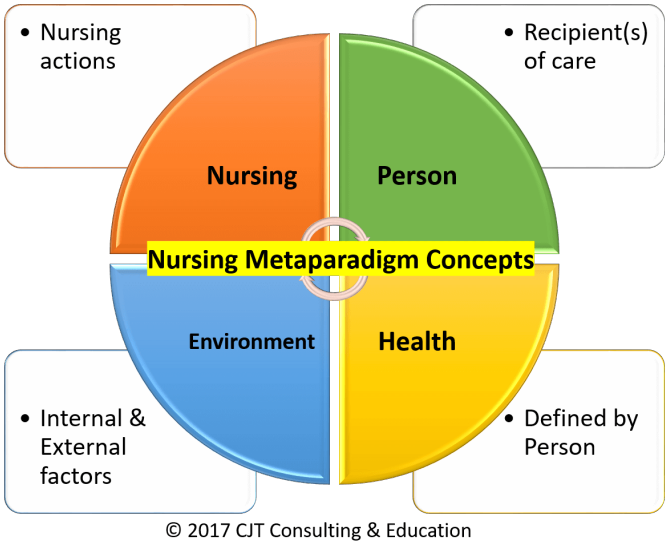
The theory that grounded this study was the Nursing Neuman Systems Model, which incorporates the idea that nursing can be broken down into environment, person, nursing, and health (Hannoodee & Dhamoon, 2023). This model seeks to illuminate the aspects of nursing that affect an individual by linking broader ideas with practical applications. According to this model, a person can be affected by the number and intensity of stressors faced and how they influence well-being. The Nursing Neuman Systems Model was developed by Betty Neuman and can be used to better understand and manage stressors in the healthcare workplace (Hannoodee & Dhamoon, 2023). If nurses can better handle stress and adversity at work, they can overcome the factors persuading them to prematurely leave the nursing field or to succumb to burnout.

This theoretical model helps to highlight the connection between the effects of circumstances and how one's environment can influence one's mental well-being. If

nurses more fully understand the impact of their environments, they can then make more informed treatment decisions (Hannoodee & Dhamoon, 2023). According to a study conducted by Ahmadi and Sadeghi (2017), the Nursing Neuman Systems Model can be used to address issues with patients by applying a holistic approach to health, specifically demonstrated in treating patients with multiple sclerosis. Ross and Bourbonnais (1985) also demonstrated the efficacy of using the Nursing Neuman Systems Model to approach nursing practice and research by providing case studies as examples. Nurses should also be viewed in a complex system, with energy exchanges and interrelated parts (Montano, 2020). Whether speaking of patients or nurses, this conceptual model depicts the idea that people are influenced by their pasts, their environments, and other stressors, which will ultimately affect how they handle difficulty and adversity in the workplace and in life.

Figure 1

Description of Nursing Neuman Systems Model



(Thompson, 2017)

The logical connections between the framework presented and the nature of my study include the fact that the variables of my study were age, race, and gender of nurses in community hospitals in Michigan and how these factors related to reasons for leaving the nursing profession. The hope was that by assessing the connections between the factors of age, race, and gender, the dependent variable of reasons for leaving the nursing profession could be alleviated. The Nursing Neuman Systems Model teaches that people are complex systems and are products of environmental factors, stressors, and circumstances (Montano, 2020). When nurses are unable to handle stressors, fatigue, and other negative influences properly, they are less likely to maintain a successful career in the healthcare field. This conceptual model emphasizes the importance of reducing stress factors so that optimum health for all parties can be achieved (Ross & Bourbonnais, 1985).

Nature of the Study

To address the research question in this quantitative study, the specific research design used a correlational research design to examine the research question and determine the relationships between the variables. Methodology included a binary logistic regression analysis. The data were obtained from the Michigan Annual Nurse Survey Project for the year 2023. The Michigan Department of Health and Human Services (MDHHS) provided the raw data from the surveys after Institutional Review Board (IRB) approval was obtained.

Data points from the Michigan Annual Nurse Survey for the year 2023:

- data points related to age, race, gender—independent variables

- data point related to nursing turnover—"reasons for leaving the nursing profession"—dependent variable 7

Literature Review

Introduction

Experts predict that the nursing shortage will increase in coming years as nurses age out of the workforce or decide to leave nursing for other reasons (Tamata & Mohammadnezhad, 2023). This study examined the reasons for leaving nursing (nursing turnover), which was the dependent variable, based on age, race, and gender, which were the independent variables, in Michigan community hospitals. The variables relate to nursing turnover and can demonstrate trends in the nursing workforce that can help healthcare administrators to prepare for the impending nursing shortage. These variables pinpoint patterns of groups leaving the nursing field and help to more fully understand why nurses are choosing to leave the healthcare field.

Keywords: *nurse age*, *nurse race*, *nurse gender*, *nursing turnover*, *nursing retention*, *nursing shortage*, *Michigan community hospitals*

Literature Review Related to Key Variables and Concepts

Nursing Shortage in the United States

The future of healthcare is dependent upon appropriate staffing in medical facilities to meet the needs of patients. As vast amounts of older nurses age out of the workforce, and smaller numbers of new nurses graduate and enter the healthcare field, a shortage of nurses will result and increase dramatically in the coming years. Staffing

difficulties seem to be prevalent among a wide range of corporations and industries, and the nursing profession is likely to be affected as well.

The shortage of nurses is aggravated by an aging nursing workforce, an increase in prevalence of chronic disease, and the aging population (de Vries et al., 2023). Life expectancy is on the rise and is expected to continue to rise, which will multiply the numbers of patients who need care in the coming years (de Vries et al., 2023). With the population aging, more patients will require acute and specific care, which will increase the need for skilled nurses. The outcome is that there are not enough new nurses entering the workforce to overcome the various factors compounding the shortage.

A thorough understanding of why nurses are choosing to leave the nursing profession is vital to increasing retention of currently employed nurses (de Vries et al., 2023). Unsafe work environments are a key factor found to contribute to many nurses' desires to leave (Costa & Friese, 2022). Various healthcare administrators have worked to address the issue, to no avail (Costa & Friese, 2022). Stress, burnout, long hours, lack of equipment/resources, reduced support, and heavy workloads are other factors that play a role in nursing turnover. It is vital that healthcare organizations work to retain the skilled nurses whom they already have by addressing the multiple reasons for leaving.

The COVID-19 pandemic introduced a myriad of added stressors into the field of nursing that added to the nursing shortage (Bourgault, 2022). During this time, working conditions worsened, and since then, nurses have been commonly expected to work 12-hour shifts with increased patient loads, more difficult patients, and additional overtime hours (Bourgault, 2022). The lasting effects of the COVID-19 pandemic undoubtedly

played a role in innumerable nurses changing professions, aspiring nurses deciding not to pursue the profession, and employed nurses retiring early. Poor workplace conditions and inadequate staffing were already noted as systemic issues in the nursing field, and these characteristics have only become more prevalent since COVID-19 (Bourgault, 2022). Consequently, the healthcare field has a higher need for nurses than ever before.

High turnover rates in nursing are a growing concern for many healthcare organizations. Turnover results in decreased quality of patient care, higher mortality rates, increased medical errors, loss of care continuity, and higher patient dissatisfaction (de Vries et al., 2023). Additionally, high turnover leads to financial losses as a result of recruiting efforts and higher patient care costs. There is obviously a glaring issue present with the high turnover that is present in the nursing field.

Some nurses have suggested ideas concerning ways to mitigate the shortage. One study found that nurses in Tennessee proposed that the shortage might be alleviated by building a pipeline for education, implementing innovative academic models, supporting the well-being of nurses, and collecting aggregate nursing data (Harnois-Church et al., 2024). The academic models would help to retain nurses, and placing more emphasis on maintaining the mental and physical health of nurses would also decrease turnover (Harnois-Church et al., 2024). The study concluded that increased communication among healthcare professionals and among nursing employers might help to cultivate effective strategies to address the shortage (Harnois-Church et al., 2024).

Nurse Retirements

The average age of nurses in the healthcare workforce continues to change nationwide. Studies have found that the overall age of nurses in the nation is rising. According to Smiley et al. (2021), nurses over 65 years old make up the largest age category of employed nurses in the United States. Older workers born after World War II will soon enter retirement age, and this will drastically affect the nursing profession (Caulfield, 2020). By 2050, it is expected that workers 65 years of age and older will make up around 19% of the entire U.S. workforce, and by 2030, about 1 million registered nurses currently working will have retired (Stimpfel et al., 2020). Additionally, a massive portion of the population will be over 70 years old and will require more medical services (Caulfield, 2020). With older nurses retiring and the population aging, there will be increased strain on the healthcare field to provide adequate staffing.

Older nurses cite various motivations for deciding to retire when they do. Some argue that organizational policies, practices, and workplace culture have major influences on their decisions to leave (Cleaver et al., 2022). In one study, nurses noted deteriorating health, stress, and the desire for more time with family and friends as reasons for retiring (Cleaver et al., 2022). This study also discovered that older nurses were likely to continue working past retirement age when their schedules were more flexible (Cleaver et al., 2022). Overall, older nurses seem to be motivated to stay longer in their workplaces when schedules are flexible, the organization is well-managed, and their retirement plans are honored (Cleaver et al., 2022).

Some might suggest that nurses may struggle with keeping up with the workload in their professions as they age. Healthcare workers experience the most occupational injuries and illnesses when compared to other occupational groups (Stimpfel et al., 2020). Additionally, it has been proven that it takes longer for recovery from injuries sustained at work to heal as workers age. One study found that despite these factors, older nurses were more influenced by other factors at work, such as increased use of technology, inflexible hours, and not feeling as if their voices were being "heard" at work (Stimpfel et al., 2020). In most cases, age might not be the largest factor affecting a nurse's ability to provide quality care.

New Graduate Nurses and Retention

Experts predict that from 2020 to 2030, 1 million nurses will retire (Caulfield, 2020). This will occur around the same time that the abundant senior population will start to necessitate additional medical care. A seemingly obvious solution to a considerable number of older nurses reaching retirement age and leaving the profession is to produce a comparable influx of young, new graduate nurses who will enter the workforce. However, studies show that the nursing workforce is already below the recommended number, making it even less likely that a large enough number of new nursing graduates will be able to overcome the shortage (Caulfield, 2020). Additionally, a study conducted in 2017 showed that new graduates accounted for the largest number of nurses entering and leaving the workforce (Van Camp & Chappy, 2017). There is a vast shortage of young, new nurses entering the nursing field.

The Michigan Annual Nurse Survey Project conducted in 2023 found that 90.1% of the employed registered nurses were between 45 and 54 years old (MDHHS, 2023). Of the registered nurses in Michigan, 90.5% were between 25 and 34 years old, and 95.5% were less than 25 years old (MDHHS, 2023). This seems to indicate that the age of Michigan nurses is quite varied. Although there is a high number of older nurses, there is also a large number of younger nurses.

Racial Diversity in Nursing

Healthcare leaders recognize that assembling a diverse workforce of nurses is integral when offering care to various groups and underserved communities (Cineas & Schwartz, 2023). A diverse workforce can better help to treat and care for patients of varied backgrounds with unique social customs. The 2020 National Nursing Workforce Survey found that in the United States, the largest racial group of non-Caucasian registered nurses are nurses who reported being Asian, making up 7.2% of the workforce (Smiley et al., 2021). From 2013 to 2020, the number of Hispanic/Latinx registered nurses increased from 6% to 6.7%, and the number of Black/African American nurses increased as well (Smiley et al., 2021). When the staff are diverse in race and cultural customs, they will be better equipped to identify social determinants of health and common maladies affecting these different people groups and will be more aware of efficient tactics of care.

Racial Diversity of Michigan Nurses

The 2023 Michigan Annual Nurse Survey reported that 89.9% of registered nurses in the state of Michigan are Hispanic or Latinx, 87.8% are Asian, and 85.4% are

Black (MDHHS, 2023). These percentages have vastly increased from surveys of previous years, indicating that racial diversity has amplified in the nursing workforce in Michigan. Though there appears to be a varied group of ethnicities in the nursing profession, many nurses of minority groups indicate that racism is still a prominent roadblock in the workforce (Cineas & Schwartz, 2023). Nursing school instructors continue to search for inclusive ways to teach students about diverse methods of treatment to ensure patient safety and excellent quality of care (Iheduru-Anderson & Alexander, 2022). Healthcare leaders must work diligently to ensure that all people groups are represented fairly in the workplace and that patients of all backgrounds are treated with respect and equity.

Racism in Nursing

A study completed in 2020 found that medical and nursing students in California experienced racial microaggressions on a daily basis, which negatively affected their learning and academic prowess (Ackerman-Barger et al., 2020). Health profession schools struggle to attract and retain underrepresented students, leading to less diversity in the workplace (Ackerman-Barger et al., 2020). These belittling acts of racism undoubtedly affected the students' learning and well-being, showing that racism continues to be an issue in the healthcare field (Ackerman-Barger et al., 2020). Students likely feels as if there is no imminent solution to racism in the workplace due to the record that history indicates on the issue (Bennett et al., 2019). The inclusion of varied people groups in the medical field and academic setting is paramount to paving a brighter future utilizing new ideas and practices that better serve all patients in need.

Racism in healthcare leads to inequalities in nursing practice, education, and patient health outcomes (Iheduru-Anderson & Wahi, 2022). Until now, efforts to reduce racism in the nursing setting have emphasized teaching cultural competence skills, which has inadvertently resulted in a reduction in discourse about racism (Iheduru-Anderson & Wahi, 2022). Experts realize that not thoroughly discussing racism and its negative effects is not an adequate method for dealing with the issue moving forward. Moving forward, topics of racism should be discussed professionally in the healthcare setting, including oppression, power, privilege, and equal policies (Iheduru-Anderson et al., 2020). A venue allowing for proper dialogue and discussion about ways to eliminate racism in the nursing field is vital to the betterment of staff experience and improved patient health.

It is important that students of minority groups feel safe to express their negative experiences related to racism in the healthcare setting. A safe and respectful learning environment for all groups of students will help to cultivate a more well-rounded and skilled medical staff (Bennett et al., 2019). Unfortunately, the feeling of being excluded in the academic setting due to race often continues on into the healthcare workplace for many, including feelings of exclusion, being invisible, and professional isolation (Bennett et al., 2019). Although the issue is layered and will not easily be eradicated, it is vital that healthcare leaders have a comprehensive understanding of how it affects nursing students, staff, and even patients in the healthcare setting.

Gender of Michigan Nurses

The 2023 Survey of Michigan Nurses found that 9.8% of registered nurses in the state were male, and 88.7% of the registered nurses were female (MDHHS, 2023). This statistic is a little lower than the percentage reported from the National Nursing Workforce Survey conducted in 2020 that reported that males made up 9.4% of the registered nurse workforce, an increase even from 2017 (Smiley et al., 2021). Despite the increase of men working in the nursing field in the past few years, there is still a greater number of women nurses in the state of Michigan. Many healthcare leaders are working to attract more men to the field of nursing to diversify the staff and to help alleviate the upcoming nursing shortage.

Males in Nursing

The modern-day world requires various levels of diverse and specific care in the healthcare setting. Over the last ten years, the number of men in the nursing profession has increased by 59% (Munday, 2024). In 2023, the U.S. Bureau of Labor Statistics reported that males make up around 12% of all licensed practical nurses, registered nurses, and nurse practitioners (Munday, 2024). Experts argue that with the more diverse care that is needed, the more diverse the healthcare staff must be. A diverse healthcare workforce would help to better serve patients with various requirements for care. Additionally, the attraction of more male nurses to the profession might help to tackle some of the upcoming shortage issues.

Gender Stereotypes in Nursing

Some experts believe that the heightened requirements for entering nursing school have increased the struggle to acquire new nurses of either gender (Kearns & Mahon, 2021). There is also a stigma attached to male nurses as being both dominant and dominated, victimized and valorized, or receiving more accolades and credit based on gender alone (Kearns & Mahon, 2021). Stereotypes of male nurses affect their well-being, often leading to depression and other negative emotional reactions (Kearns & Mahon, 2021). The public perception of male nurses needs a drastic transformation in order for men to be more attracted to the profession without the fear of negative scrutiny and labelling.

A change in the nursing workforce regarding men and women gender roles requires complex solutions. This sort of revolution necessitates political, sociocultural, and professional action on the part of leaders and officials (Kearns & Mahon, 2021). Additionally, modifications that are successful in one healthcare organization may not work in another, depending on the location and environment. One study conducted in 2022 found that males are less likely to enter advanced practice nursing roles because they are not staying in the nursing field long enough after graduation (Woo et al., 2022). Healthcare leaders must consistently take strides to understand different obstacles faced by males and females in the nursing workplace so that they can work to eliminate bias.

Literature Review Gap

Researchers and experts have predicted an impending nursing shortage in the coming years as older nurses age out of the workforce and fewer new nurses enter the

workforce. Studies suggest that nursing retention could be increased by improving working conditions and focusing on ways to improve workforce stability (Friese et al., 2024). However, there is little or no literature on specific and proven ways to alleviate the shortage by retaining skilled nurses, likely because trends of retention and turnover are not fully delineated. According to Mutisya (2019), the nursing shortage is a nationally recognized issue and undermines the overall efficacy of many health systems. Consequently, there are obvious connections between employing an adequate number of nursing staff and experiencing positive patient health outcomes.

Many topics surrounding the nursing workforce shortage have not been fully studied, including adequate staffing ratios, leadership, and mental and physical wellness of nurses (Whittaker et al., 2018). Numerous studies emphasize that nurses are leaving the healthcare field in droves due to dissatisfaction, lack of resources, and burnout, but the data are lacking as it relates to finding solutions (Whittaker et al., 2018). In order to find efficient ways to combat the shortage, more research must be conducted to find connections between variables of age, race, and gender of nurses in the community hospitals of Michigan. If patterns in hiring and retaining skilled nurses that are related to age, race, and gender are more fully understood, administrators could better equip their organizations with skilled staff to help prepare for the predicted shortage.

Literature Review Conclusion

Scholars agree that the coming years will be difficult for healthcare organizations as massive numbers of older nurses will age out of the workforce, resulting in a critical shortage of skilled nurses. Countless older nurses are aging out of the workforce, while

other younger nurses and new graduates are leaving due to environmental and mental health factors, such as stress, overworking, and burnout. According to the National Healthcare and RN Retention Report, the nursing turnover rate was 16.4% in 2014 and 17.1% in 2016 and is expected to climb in the coming years (Fisher et al., 2016). Although experts are aware of this impending issue, most healthcare administrators have not initiated a method of action to combat this shortage.

The literature related to this topic is ample in solidifying the fact that there will not be enough nurses to care for the sick in the coming years, but an adequate solution or plan of attack has not been suggested. To properly staff a healthcare organization, there must be a comprehensive understanding of trends related to the hiring process and rates of retention for nurses in these specific communities. If these tendencies and patterns are recognized and thoroughly assessed, healthcare administrators can more efficiently predict their staffing needs and better prepare for the impending shortage of nurses.

Definitions of Key Terms

Turnover: Turnover is defined as the separation of an employee from a job or organization (Hom et al., 2017).

Retention: Retention [rate] is the rate at which a worker stays employed by a certain organization over a given period of time (Lee et al., 2017).

Race: Race refers to a group sharing some outward physical characteristics and some commonalities of culture, language, and history (Merriam-Webster, n.d.). Race can also refer to a specific social group, geographical origin, or cultural background (Merriam-Webster, n.d.).

Gender: Gender can be used to describe the characteristics of men, women, boys, and girls that are socially constructed, while sex refers to those characteristics that are biologically created (WHO-Regional Office for Europe, n.d.). Gender can include norms, behaviors, and roles associated with being a woman, man, girl, or boy in addition to relationships with others (WHO-Regional Office for Europe, n.d.).

Community hospitals: Community hospitals are all nonfederal, short-term, general, and other special hospitals including academic medical centers or other teaching hospitals (AHA, n.d.).

Hospital: A hospital is an institution engaged in providing, by or under the supervision of physicians, inpatient diagnostic and therapeutic services or rehabilitation services for injured, sick, or disabled persons (CMS, n.d.).

Assumptions

There were several assumptions that were associated with the study. The data for this study were obtained from a secondary source, so the information and details obtained from the data were trusted to be accurate. The data used were from a nursing survey, thus the answers provided by the nurses who completed the survey were assumed to be correct. Another assumption was that the utilized quantitative methods of research would result in an accurate understanding and a thorough evaluation of the variables.

Scope and Limitations

The data used in this study were retrieved from only Michigan hospitals and did not encompass data from other states. The study focused on registered nurses and

licensed practical nurses in these hospitals and did not analyze any other professions within the hospital setting.

Significance

This study was significant in that the shortage of nurses in the workforce may affect the way in which healthcare is delivered. According to Mutisya (2019), one of the greatest responsibilities of healthcare administrators is to correctly delineate the adequate number of nurse staffing required to ensure patient safety. More studies need to address the relationship between age, race, gender, and nursing retention as this will add to a body of knowledge that seeks to improve quality patient care. This could help patients experience positive health outcomes when they are treated in a timely manner with adequate staffing.

Summary and Conclusion

One of the greatest responsibilities of healthcare administrators is to correctly delineate the adequate number of nurse staffing required to ensure patient safety (Mutisya, 2019). It is imperative that healthcare leaders understand the trends of how age, race, and gender influence hiring practices and what trends tend to drive the staffing of hospitals. If a specific age is more likely to leave nursing, or a specific race is less likely to remain in nursing, or if males versus females are more likely to leave the nursing field, these statistical analyses can help to better prepare for the future. Although various experts predict that the nursing shortage will increase, there is not much available data showing how the shortage can be combated. Thus, this study sought to discover trends of nursing turnover related to age, race, and gender. Once the tendencies are more fully

comprehended, then the healthcare administrators can better work to successfully build their healthcare teams and overcome impending shortages.

Section 1 covered the background information related to the study and included the problem being analyzed, the purpose and significance of the study, the theoretical foundation of the study, the nature of the study, and research questions related to the study. The first section additionally included a review of the associated literature, the gap in the literature, definitions of key terms related to the study, assumptions for the study, and the scope and limitations of the study. Section 2 will cover details related to the design of the research and the method for collection of the associated data.

Section 2: Research Design and Data Collection

Introduction

A thorough review of relevant literature related to the impending shortage of registered nurses was conducted. Additionally, the possible patterns of connection between the shortage of nurses and age, race, and gender of nurses were analyzed. Although scholars have dissected the fact that the shortage is imminent and is likely to introduce innumerable obstacles in the healthcare setting, more research would offer ways to mitigate this issue by proposing strategic plans of action for healthcare organizations to initiate (Tamata & Mohammadnezhad, 2023). The purpose of this quantitative study was to analyze the differences in reasons for leaving nursing based on age, race, and gender in Michigan community hospitals.

Research Design and Rationale

Statistical analysis was conducted on the data retrieved from the 2023 Michigan Annual Nurse Survey Project completed by the MDHHS. The design choice was a quantitative methodology with correlational research used to examine the relationships between the dependent and independent variables. The independent variables of age, race, and gender, and the dependent variable of reasons for leaving the nursing profession (data related to turnover) were used to perform a binary logisitc regression analysis. This type of analysis helped with examining the research questions and ultimately determined the types of relationships that exist between the variables (Curtis et al., 2016).

Operationalization of Variables

The independent variables in this study were age, race, and gender, and the dependent variable were reasons for leaving the nursing profession (data related to turnover). There are various reasons that nurses in the state of Michigan give for leaving the nursing profession, ranging from burnout, emotional distress, and overworking. Other studies have indicated that due to large amounts of skilled workers exiting the nursing field, there will be a detrimental shortage of nurses left to serve patients (Fisher et al., 2016). Older nurses are retiring, and there are not enough new graduate nurses entering the profession to compensate for the shortage. Experts agree that this shortage will dramatically affect patient care, but specific strategies for addressing the shortage have not fully been addressed (Alharbi et al., 2020).

Table 1

Description and Operationalization of the Variables

Research question	Independent variable	Dependent variable	Type of analysis
RQ 1	Age	Reasons for leaving nursing	Multiple regression
	Race	Reasons for leaving nursing	Multiple regression
	Gender	Reasons for leaving nursing	Multiple regression

Methodology

Section 2 includes the research design, rationale, and methodology that will be used to evaluate and investigate the data. The study incorporated quantitative research methods with correlational research utilized to examine the relationships between the dependent and independent variables. Secondary data were obtained from the 2023

Michigan Annual Nurse Survey Project. Age, race, and gender were analyzed, in addition to reasons for leaving the nursing profession and intent to leave the nursing profession. Patterns and relationships between the variables will be discussed as they relate to the nursing shortage.

Population and Sampling Procedures

The total data population sample was 22,754 nurses in the state of Michigan that completed the 2023 survey. The independent variables were age, race, and gender of Michigan nurses. Age was categorized as either less than 25 years old, 25 to 34 years old, 35 to 44 years old, 45 to 54 years old, 55 to 64 years old, or 65 years of age and older. Gender was classified as female or male. Race was categorized as White, Black, Asian, or other, with subcategories of Hispanic or Middle Eastern and multi-racial. Descriptive statistics related to the survey respondents were excluded from the data, including date of birth, address, zip code, social security information, name, or any other personal information. Any details that would identify the respondents of the survey were excluded from the study. The data were obtained after approval from the Walden University IRB program.

Power Analysis

The following information provides a-priori sample size calculations for this study using a multiple regression analysis. This information provides the minimum required sample size (although the actual sample size will be much larger). The calculation also provides the desired probability level, the number of predictors in the

model, the anticipated effect size, and the desired statistical power level. The results of the power analysis verify that the sample size for this study is appropriate.

Table 2

Multiple Regression Sample Size

Expected effect size (f2)	0.10
p-value	0.001
Predictor variables	4
Statistical power	0.08
Minimum required sample size	124

Secondary Data Analysis Methodology

The data for this study were used to analyze and determine whether or not a relationship existed between the age, race, and gender of Michigan nurses and reasons for leaving the nursing profession. The data were obtained from the 2023 Michigan Annual Nurse Survey Project conducted by the MDHHS. The secondary data were coded in Excel, and a binary logistic regression was used to examine the data. This analysis was utilized to determine if there was a correlation between the variables. SPSS was used to run the means and standard deviations for each variable.

Research Question and Hypothesis

RQ1: Is there a statistically significant difference in the Michigan Annual Nurse Survey results for "reasons to leave the nursing profession" based on age (25–34, 35–44, 45–54, 55–64), race (Black/White), and gender (male/female) in Michigan community hospitals for the year 2023?

***H*$_o$1**: There is no statistically significant difference in the Michigan Annual Nurse Survey results for "reasons for leaving nursing the

nursing profession" based on age (25–34, 35–44, 45–54, 55–64), race (Black/White), and gender (male/female) in Michigan community hospitals for the years 2019 and 2021.

H_a**1**: There is a statistically significant difference in the Michigan Annual Nurse Survey results for "reasons for leaving the nursing profession" based on age (25–34, 35–44, 45–54, 55–64), race (Black/White), and gender (male/female) in Michigan community hospitals for the years 2019 and 2021.

Threats to Validity

External Validity

Threats to validity might have occurred if the researchers made inaccurate inferences based on the survey answers. The participants in the study might have been chosen in such a way that the entirety of the nurses in Michigan is not accurately represented. No generalizations were made outside of this sample group of nurses in the state of Michigan that would threaten the external validity of the results.

Internal Validity

Validity of this study could be influenced by many factors, including errors in measurement or the selection of participants in the study (Patino & Ferreira, 2018). The MDHHS conducted this survey in Michigan hospitals and recorded the answers of the nurses. There might have been human error present when recording the data.

Ethical Procedures

All private information regarding the respondents of the nursing survey will be protected in confidentiality and will be stored securely. No identifying information will be used in the study or disclosed. All professional and institutional standards for conducting research for this study were reviewed by the Walden University Institutional Review Board's ethical procedures committee. The Walden University IRB approval number for this study is 01-13-25-1063362.

Summary

The methods and plan for analysis of this study have been explained in Section 2. Measures that were incorporated to protect the data and sources of the data have been explained. Additionally, a plan for statistical analysis of the data and the variables has been outlined. The study design and rationale have been explained, along with external and internal threats to the data. The sample population has been indicated in addition to the source for the data. Section 3 will contain the analysis of the data and the results. This will include an answer to the research question and hypothesis presented.

Section 3: Presentation of the Results and Findings

The primary purpose of this quantitative study was to examine the differences in reasons for leaving nursing based on age, race, and gender in Michigan community hospitals. For the study, I utilized data from the 2023 Michigan Annual Nurse Survey Project containing information on the dependent and independent variables to assess the relationship between age, race, and gender and the various reasons that nurses gave for deciding to leave the profession.

The dependent variables for this study were reasons for leaving the nursing profession, and the independent variables were age, race, and gender. Experts have predicted that the nursing shortage will rise dramatically in the next few years as older nurses age out of the profession, and only a small number of new nurses are entering the field (Tamata & Mohammadnezhad, 2023). The result is that patients will receive a lower quality of care. Once trends in hiring and staffing hospitals are more fully understood, healthcare leaders can better choose ways to combat the nursing shortage and offer improved care to their patients. The following research question and hypothesis guided this study:

RQ1: Is there a statistically significant difference in the Michigan Annual Nurse Survey results for "reasons to leave the nursing profession" based on age (18–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75+), race (Black, White, multiracial, Asian, American Indian/Alaska Native, other, unknown), and gender (male, female, gender nonbinary, nonconforming, genderqueer, transgender) in Michigan community hospitals for the year 2023?

***H*o1**: There is no statistically significant difference in the Michigan Annual Nurse Survey results for "reasons for leaving nursing the nursing profession" based on age (18–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75+), race (Black, White, multiracial, Asian, American Indian/Alaska Native, other, unknown), and gender (male, female, gender nonbinary, nonconforming, genderqueer, transgender) in Michigan community hospitals for the year 2023.

***H*a1**: There is a statistically significant difference in the Michigan Annual Nurse Survey results for "reasons for leaving the nursing profession" based on age (18–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75+), race (Black, White, multiracial, Asian, American Indian/Alaska Native, other, unknown), and gender (male, female, gender nonbinary, nonconforming, genderqueer, transgender) in Michigan community hospitals for the year 2023.

Section 3 of this study comprises the statistical analyses performed on the 2023 Michigan Annual Nurse Survey Project dataset. In this section, I outline the data collection timeframe, the total number of nurses who participated in the survey, anomalies observed in the dataset, descriptive characteristics of the variables, and the population included. This section also covers a discussion of the analysis of the survey data with a summary of the findings.

Data Collection of Secondary Data

Time Frame of Collection and Discrepancies in Secondary Data

I collected the data for this study from the 2023 Michigan Annual Nurse Survey Project conducted by the MDHHS. The data included the ages, races, and genders of the survey respondents, their timelines for planning to stay in nursing, and the reasons they gave for leaving the nursing profession. There were no discrepancies noted in the data, except for some survey questions to which certain participants chose not to respond. I have omitted certain data that were not pertinent to my research.

Descriptive Characteristics of Sample and Population

The data consisted of 22,754 nurses who responded to the 2023 Michigan Annual Nurse Survey Project. The independent variables were age, race, and gender, and the dependent variables were reasons for leaving nursing. There were five categories given for gender, and I narrowed them down to female, male, or gender nonbinary/nonconforming/genderqueer/transgender. Any answers that were marked as "prefer not to respond", I moved to the category of "missing". Table 3 provides information related to the three variables.

Table 3

Descriptive Statistics Related to Gender, Race, and Age

Classifications	Percentage	*N* for each
Female	81.4%	*n* = 18,520
Male	7.41%	*n* = 1,686
NB, GNC, GQ, TRANS	0.16%	*n* = 37
White	79.4%	*n* = 18,059
Black	4.81%	*n* = 1,095
American Indian/Alaska Native	0.27%	*n* = 62
Asian	1.73%	*n* = 393
Other race	1.63%	*n* = 371
Multiracial	1.80%	*n* = 410
Unknown race	0.51%	*n* = 117
18–24 years old	0.64%	*n* = 143
25–34 years old	7.14%	*n* = 1,624
35–44 years old	13.9%	*n* = 3,157
45–54 years old	17.4%	*n* = 3,968
55–64 years old	25.1%	*n* = 5,712
65–74 years old	22.5%	*n* = 5,131
75+ years old	3.52%	*n* = 800
Unknown age (missing data)	9.75%	*n* = 2,219

Study Results

This concluding portion of Section 3 contains statistical assumptions of the study in addition to the results of the statistical analysis performed. The study findings associated with the research question and hypotheses are further explained.

Statistical Assumptions

The assumption that there were no outliers in the data was met. The independent variables were also not too correlated with one another, thus there was minimal multicollinearity. The sample size was adequate to provide usable results and logical conclusions that can be applied to other populations. Binary logistic regression was determined to be a proper fit for thoroughly analyzing and assessing the data.

Results of Statistical Analysis for Research Question

To evaluate nurses leaving the profession due to retirement, a binary logistic regression was conducted as shown in Figure 2. The dependent variable was leaving nursing due to retirement. The predictor variables were age, race, and gender. The analysis showed gender to not be a statistically significant predictor of leaving nursing due to retirement. Controlling race, the analysis showed age as a positive statistically significant predictor of leaving nursing due to retirement (B = 0.764, *SE* = 0.018, Wald = 1827.717, *df* = 1, Exp(B) = 2.147, 95% CI = 2.074, 2.224, $p < 0.001$). These statistics are visible in Table 3. For every age bracket of increase, the odds for nurses leaving nursing due to retirement increased by approximately 115%. Controlling for age, the analysis showed race = Black as a negative statistically significant predictor of leaving nursing due to retirement compared to the baseline race of White (B = -0.458, *SE* = 0.096, Wald = 22.643, *df* = 1, Exp(B) = 0.632, 95% CI = 0.523, 0.764, $p < 0.001$). Thus, nurses who identified as Black were 37% less likely to leave the nursing profession due to retirement when compared with White nurses. All other races within the analysis were not

statistically significant ($p > 0.05$) predictors of leaving nursing due to retirement when compared to the baseline race of White.

Figure 2

Evaluation of Nurses Leaving the Profession Due to Retirement: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	.764	.018	1827.717	1	<.001	2.147	2.074	2.224
	Race_RR			26.193	6	<.001			
	Race_RR(1)	-.241	.153	2.490	1	.115	.786	.583	1.060
	Race_RR(2)	.150	.271	.304	1	.581	1.161	.683	1.976
	Race_RR(3)	-.009	.163	.003	1	.956	.991	.721	1.363
	Race_RR(4)	.098	.145	.454	1	.500	1.103	.830	1.466
	Race_RR(5)	-.225	.352	.408	1	.523	.799	.401	1.592
	Race_RR(6)	-.458	.096	22.643	1	<.001	.632	.523	.764
	Gender			.208	2	.901			
	Gender(1)	-.032	.072	.200	1	.655	.969	.842	1.114
	Gender(2)	.045	.525	.007	1	.931	1.046	.374	2.928
	Constant	-5.136	.097	2821.365	1	<.001	.006		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to caring for home or family, a binary logistic regression was conducted as shown in Figure 3. The dependent variable was leaving nursing due to caring for home or family. The predictor variables were age, race, and gender. Controlling race, the analysis showed age as a positive statistically significant predictor of leaving nursing due to caring for home or family (B = 0.270, *SE* = 0.047, Wald = 33.585, *df* = 1, Exp(B) = 1.310, 95% CI = 1.196, 1.436, $p < 0.001$). These statistics are shown in Figure 3. For every age bracket of increase, the odds for nurses Leaving nursing due to caring for home or family increased by approximately 31%.

Controlling for *Age*, the analysis showed Race = *Multiracial* as a positive statistically significant predictor of *Leaving nursing due to caring for home or family* compared to the baseline race of *White* (B = 1.019, S.E. = 0.280, Wald = 13.196, df = 1, Exp(B) = 2.770, 95% C. I. = 1.599, 4.800, $p < 0.001$). Thus, nurses that identified as *Multiracial* were 177% more likely to leave the nursing profession due to caring for home or family when compared with *White* nurses. All other races within the analysis were not statistically significant ($p > 0.05$) predictors of *Leaving nursing due to caring for home or family* when compared to the baseline race of *White*.

The analysis showed that Gender = *Male* was a negative statistically significant predictor of *Leaving nursing due to caring for home or family* compared to the baseline gender of *Female* (B = -0.630, S.E. = 0.276, Wald = 5.215, df = 1, Exp(B) = 0.533, 95% C. I. = 0.310, 0.915, $p < 0.05$). Thus, nurses that identified as *Male* were 75% less likely to leave the nursing profession due to caring for home or family when compared to nurses who identified as *Female.* The data are depicted in Figure 3.

Figure 3

Evaluation of Nurses Leaving the Profession to Care for Family: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	.270	.047	33.585	1	<.001	1.310	1.196	1.436
	Race_RR			19.910	6	.003			
	Race_RR(1)	1.019	.280	13.196	1	<.001	2.770	1.599	4.800
	Race_RR(2)	.870	.592	2.161	1	.142	2.387	.748	7.617
	Race_RR(3)	.439	.418	1.101	1	.294	1.551	.683	3.519
	Race_RR(4)	.495	.364	1.851	1	.174	1.641	.804	3.349
	Race_RR(5)	.104	1.011	.011	1	.918	1.110	.153	8.052
	Race_RR(6)	-.446	.324	1.897	1	.168	.640	.339	1.208
	Gender			5.215	2	.074			
	Gender(1)	-.630	.276	5.215	1	.022	.533	.310	.915
	Gender(2)	-16.983	6499.732	.000	1	.998	.000	.000	.
	Constant	-5.464	.244	501.445	1	<.001	.004		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to being enrolled in an education program, a binary logistic regression was conducted as shown in Figure 4. The dependent variable was *Leaving nursing due to being enrolled in an education program*. The predictor variables were *Age*, *Race*, and *Gender*. The analysis showed that *Gender* was not a statistically significant predictor of *Leaving nursing due to being enrolled in an education program.* Controlling *Race*, the analysis showed *Age* as a negative statistically significant predictor of *Leaving nursing due to being enrolled in an education program (*B = -0.949, S.E. = 0.110, Wald = 74.179, df = 1, Exp(B) = 0.387, 95% C. I. = 0.312, 0.480, $p < 0.001$). For every age bracket of increase, nurses were 61% less likely to leave nursing due to being enrolled in an education program. Controlling for *Age*, the analysis showed Race = *Multiracial* as a positive statistically significant predictor of *Leaving*

nursing due to being enrolled in an education program compared to the baseline race of *White* (B = 1.153, S.E. = 0.528, Wald = 4.760, df = 1, Exp(B) = 3.168, 95% C. I. = 1.124, 8.925, $p < 0.05$). Thus, nurses that identified as *Multiracial* were 217% more likely to leave the nursing profession due to being enrolled in an education program when compared with *White* nurses. All other races within the analysis were not statistically significant ($p > 0.05$) predictors of *Leaving nursing due to being enrolled in an education program* when compared to the baseline race of *White*. The data are shown in Figure 4.

Figure 4

Evaluation of Nurses Leaving the Profession Due to Education: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	-.949	.110	74.179	1	<.001	.387	.312	.480
	Race_RR			7.769	6	.256			
	Race_RR(1)	1.153	.528	4.760	1	.029	3.168	1.124	8.925
	Race_RR(2)	-14.898	3973.919	.000	1	.997	.000	.000	.
	Race_RR(3)	.910	.729	1.557	1	.212	2.484	.595	10.373
	Race_RR(4)	-.226	1.016	.049	1	.824	.798	.109	5.847
	Race_RR(5)	-14.807	4822.305	.000	1	.998	.000	.000	.
	Race_RR(6)	.664	.438	2.299	1	.129	1.942	.823	4.581
	Gender			.233	2	.890			
	Gender(1)	.197	.407	.233	1	.629	1.217	.548	2.705
	Gender(2)	-15.982	6108.634	.000	1	.998	.000	.000	.
	Constant	-2.470	.349	49.991	1	<.001	.085		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to difficulty finding a nursing position, a binary logistic regression was conducted as shown in Figure 5. The dependent variable was *Leaving nursing due to difficulty finding a nursing position*. The predictor variables were *Age, Race*, and *Gender*. The analysis showed that neither *Age* nor *Gender were* statistically significant predictors of *Leaving nursing due to difficulty finding a*

nursing position. Controlling for *Age*, the analysis showed Race = *Black* as a positive statistically significant predictor of *Leaving nursing due to difficulty finding a nursing position* compared to the baseline race of *White* (B = 1.305, S.E. = 0.638, Wald = 4.178, df = 1, Exp(B) = 3.687, 95% C. I. = 1.055, 12.886, $p < 0.05$). Thus, nurses that identified as *Black* were 269% more likely to leave the nursing profession due to difficulty finding a nursing position when compared with *White* nurses. All other races within the analysis were not statistically significant ($p > 0.05$) predictors of *Leaving nursing due to difficulty finding a nursing position* when compared to the baseline race of *White*. The data are shown in Figure 5.

Figure 5

Evaluation of Nurses Leaving the Profession Due to Difficulty Finding Work: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	.265	.189	1.981	1	.159	1.304	.901	1.887
	Race_RR			5.213	6	.517			
	Race_RR(1)	1.282	1.040	1.522	1	.217	3.605	.470	27.656
	Race_RR(2)	-14.015	4226.402	.000	1	.997	.000	.000	.
	Race_RR(3)	-13.959	2349.908	.000	1	.995	.000	.000	.
	Race_RR(4)	-13.892	2023.539	.000	1	.995	.000	.000	.
	Race_RR(5)	-14.047	5117.081	.000	1	.998	.000	.000	.
	Race_RR(6)	1.305	.638	4.178	1	.041	3.687	1.055	12.886
	Gender			.094	2	.954			
	Gender(1)	-.316	1.033	.094	1	.759	.729	.096	5.518
	Gender(2)	-14.019	6408.634	.000	1	.998	.000	.000	.
	Constant	-8.412	.992	71.877	1	<.001	.000		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to stress/burnout, a binary logistic regression was conducted as shown in Figure 6. The dependent variable was *Leaving nursing due to stress/burnout*. The predictor variables were *Age*, *Race*, and *Gender*. The

data are shown in Figure 6. The analysis showed *Age* was a statistically significant predictor of *Leaving nursing due to stress/burnout.* Controlling *Race*, the analysis showed *Age* as a negative statistically significant predictor of *Leaving nursing due to stress/burnout* (B = -0.095, S.E. = 0.023, Wald = 17.572, df = 1, Exp(B) = 0.910, 95% C. I. = 0.870, 0.951, $p < 0.001$). For every age bracket of increase, nurses were 9% less likely to leave nursing due to stress/burnout.

Controlling for *Age*, the analysis showed Race = *Other* as a positive statistically significant predictor of *Leaving nursing due to stress/burnout* compared to the baseline race of *White* (B = 0.772, S.E. = 0.191, Wald = 16.347, df = 1, Exp(B) = 2.164, 95% C. I. = 1.488, 3.145, $p < 0.001$). Thus, nurses that identified as *Other* for race were 116% more likely to leave the nursing profession due to stress/burnout when compared with *White* nurses. Controlling for *Age*, the analysis showed Race = *Asian* as a positive statistically significant predictor of *Leaving nursing due to stress/burnout* compared to the baseline race of *White* (B = 0.378, S.E. = 0.191, Wald = 3.930, df = 1, Exp(B) = 1.460, 95% C. I. = 1.004, 2.122, $p < 0.05$). Thus, nurses that identified as *Asian* were 46% more likely to leave the nursing profession due to stress/burnout when compared with *White* nurses. All other races within the analysis were not statistically significant ($p > 0.05$) predictors of *Leaving nursing due to stress/burnout* when compared to the baseline race of *White*. The data are shown in Figure 6.

The analysis showed that Gender = *Male* was a positive statistically significant predictor of *Leaving nursing due to stress/burnout* compared to the baseline gender of *Female* (B = 0.296, S.E. = 0.100, Wald = 8.703, df = 1, Exp(B) = 1.344, 95% C. I. =

1.104, 1.636, $p < 0.05$). Thus, nurses that identified as *Male* were 34% more likely to leave the nursing profession due to stress/burnout when compared to nurses who identified as *Female.* The data are depicted in Figure 6.

Figure 6

Evaluation of Nurses Leaving the Profession Due to Stress and Burnout: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	-.095	.023	17.572	1	<.001	.910	.870	.951
	Race_RR			23.437	6	<.001			
	Race_RR(1)	.202	.203	.997	1	.318	1.224	.823	1.822
	Race_RR(2)	.243	.425	.326	1	.568	1.275	.554	2.932
	Race_RR(3)	.772	.191	16.347	1	<.001	2.164	1.488	3.145
	Race_RR(4)	.378	.191	3.930	1	.047	1.460	1.004	2.122
	Race_RR(5)	-.063	.593	.011	1	.916	.939	.294	3.004
	Race_RR(6)	-.214	.153	1.952	1	.162	.807	.598	1.090
	Gender			12.124	2	.002			
	Gender(1)	.296	.100	8.703	1	.003	1.344	1.104	1.636
	Gender(2)	.932	.484	3.709	1	.054	2.539	.984	6.554
	Constant	-2.489	.107	544.996	1	<.001	.083		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to difficulties with EMR and new technology issues, a binary logistic regression was conducted as shown in Figure 7. The dependent variable was *Leaving nursing due to difficulties with EMR/new technology*. The predictor variables were *Age*, *Race*, and *Gender*. The analysis showed that *Race* was not a statistically significant predictor of *Leaving nursing due to difficulties with EMR/new technology.* The data results are depicted in Figure 7. Controlling *Race*, the analysis showed *Age* as a positive statistically significant predictor of *Leaving nursing due to difficulties with EMR/new technology* (B = 0.469, S.E. = 0.102, Wald = 21.022, df = 1, Exp(B) = 1.598, 95% C. I. = 1.308, 1.953, $p < 0.001$). For every age bracket

increase, the odds for nurses leaving due to difficulties with EMR/new technology increased by approximately 60%. None of the races within the analysis were statistically significant ($p > 0.05$) predictors of *Leaving nursing due to difficulties with EMR/new technology* when compared to the baseline race of *White*.

The analysis showed that Gender = *Male* was a positive statistically significant predictor of *Leaving nursing due to difficulties with EMR/new technology* compared to the baseline gender of *Female* (B = 0.731, S.E. = 0.330, Wald = 4.911, df = 1, Exp(B) = 2.077, 95% C. I. = 1.088, 3.966, $p < 0.05$). Thus, nurses that identified as *Male* were 108% more likely to leave the nursing profession due to difficulties with EMR and new technology when compared to nurses who identified as *Female.* The data are depicted in Figure 7.

Figure 7

Evaluation of Nurses Leaving the Profession Due to EMR and Technology Issues: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	.469	.102	21.022	1	<.001	1.598	1.308	1.953
	Race_RR			4.320	6	.633			
	Race_RR(1)	.371	.722	.265	1	.607	1.450	.352	5.964
	Race_RR(2)	-15.601	4161.919	.000	1	.997	.000	.000	.
	Race_RR(3)	-.053	1.011	.003	1	.958	.948	.131	6.874
	Race_RR(4)	.481	.723	.443	1	.506	1.617	.392	6.666
	Race_RR(5)	1.400	1.020	1.885	1	.170	4.056	.550	29.939
	Race_RR(6)	-1.313	1.008	1.697	1	.193	.269	.037	1.940
	Gender			4.911	2	.086			
	Gender(1)	.731	.330	4.911	1	.027	2.077	1.088	3.966
	Gender(2)	-15.139	6395.610	.000	1	.998	.000	.000	.
	Constant	-7.979	.561	202.318	1	<.001	.000		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to violence and safety issues, a binary logistic regression was conducted as shown in in Figure 8. The dependent variable was *Leaving nursing due to violence/safety issues*. The predictor variables were *Age*, *Race*, and *Gender*. The data are shown in Figure 8. The analysis showed *Age* was a statistically significant predictor of *Leaving due to violence/safety issues.* Controlling *Race*, the analysis showed *Age* as a negative statistically significant predictor of *Leaving nursing due to violence/safety issues* (B = -0.323, S.E. = 0.044, Wald = 53.200, df = 1, Exp(B) = 0.724, 95% C. I. = 0.663, 0.789, $p < 0.001$). For every age bracket increase, nurses were 28% less likely to leave the profession due to violence/safety issues.

Controlling for *Age*, the analysis showed Race = *Multiracial* as a positive statistically significant predictor of *Leaving nursing due to violence/safety issues* compared to the baseline race of *White* (B = 0.794, S.E. = 0.293, Wald = 7.349, df = 1, Exp(B) = 2.213, 95% C. I. = 1.246, 3.930, $p < 0.05$). Thus, nurses that identified as *Multiracial* were 121% more likely to leave the nursing profession due to violence/safety issues when compared with *White* nurses. Controlling for *Age,* the analysis also showed Race = *Other* as a positive statistically significant predictor of *Leaving nursing due to violence/safety issues* compared to the baseline race of *White* (B = 0.833, S.E. = 0.347, Wald = 5.760, df = 1, Exp(B) = 2.300, 95% C. I. = 1.165, 4.542, $p < 0.05$). Thus, nurses that identified as *Other* race were 130% more likely to leave the nursing profession due to violence/safety issues when compared with *White* nurses. All other races within the analysis were not statistically significant ($p > 0.05$) predictors of *Leaving nursing due to violence/safety issues* when compared to the baseline race of *White*. The data are shown in Figure 8.

The analysis showed that Gender = *Male* was a positive statistically significant predictor of *Leaving nursing due to violence/safety issues* compared to the baseline gender of *Female* (B = 0.728, S.E. = 0.167, Wald = 18.950, df = 1, Exp(B) = 2.071, 95% C. I. = 1.492, 2.874, $p < 0.001$). Thus, nurses that identified as *Male* were 107% more likely to leave the nursing profession due to violence/safety issues when compared to nurses who identified as *Female.* The analysis also showed that Gender = *Gender nonbinary, nonconforming, genderqueer, transgender* was a positive statistically significant predictor of *Leaving nursing due to violence/safety issues* compared to the

baseline gender of *Female* (B = 1.638, S.E. = 0.616, Wald = 7.078, df = 1, Exp(B) = 5.146, 95% C. I. = 1.539, 17.206, $p < 0.05$). Thus, nurses that identified as *Gender nonbinary, nonconforming, genderqueer, transgender* were 415% more likely to leave the nursing profession due to violence/safety issues when compared to nurses who identified as *Female.* The data are depicted in Figure 8.

Figure 8

Evaluation of Nurses Leaving the Profession Due to Violence and Safety Issues: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	-.323	.044	53.200	1	<.001	.724	.663	.789
	Race_RR			14.431	6	.025			
	Race_RR(1)	.794	.293	7.349	1	.007	2.213	1.246	3.930
	Race_RR(2)	-.154	1.012	.023	1	.879	.857	.118	6.225
	Race_RR(3)	.833	.347	5.760	1	.016	2.300	1.165	4.542
	Race_RR(4)	-.176	.457	.148	1	.701	.839	.343	2.055
	Race_RR(5)	.348	1.012	.119	1	.731	1.417	.195	10.299
	Race_RR(6)	-.329	.325	1.025	1	.311	.719	.380	1.361
	Gender			24.912	2	<.001			
	Gender(1)	.728	.167	18.950	1	<.001	2.071	1.492	2.874
	Gender(2)	1.638	.616	7.078	1	.008	5.146	1.539	17.206
	Constant	-3.072	.191	258.293	1	<.001	.046		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to relocating and moving to another area, a binary logistic regression was conducted as shown in Figure 9. The dependent variable was *Leaving nursing due to relocating/moving to another area*. The predictor variables were *Age*, *Race*, and *Gender*. The analysis showed that neither of the variables of *Age* or *Gender* were statistically significant predictors of *Leaving nursing due to relocating/moving to another area.* Controlling for *Age*, the analysis showed Race =

Multiracial as a positive statistically significant predictor of *Leaving nursing due to relocating/moving to another area* compared to the baseline race of *White* (B = 1.137, S.E. = 0.469, Wald = 5.872, df = 1, Exp(B) = 3.118, 95% C. I. = 1.243, 7.821, $p < 0.05$). Thus, nurses that identified as *Multiracial* were 212% more likely to leave the nursing profession due to relocating/moving to another area when compared with *White* nurses. None of the other races within the analysis were statistically significant ($p > 0.05$) predictors of *Leaving nursing due to relocating/moving to another area* when compared to the baseline race of *White*. The data are shown in Figure 9.

Figure 9

Evaluation of Nurses Leaving the Profession Due to Moving and Relocation: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	.042	.082	.261	1	.610	1.043	.888	1.225
	Race_RR			6.075	6	.415			
	Race_RR(1)	1.137	.469	5.872	1	.015	3.118	1.243	7.821
	Race_RR(2)	-15.711	4241.108	.000	1	.997	.000	.000	.
	Race_RR(3)	-.136	1.009	.018	1	.893	.873	.121	6.313
	Race_RR(4)	.289	.720	.161	1	.688	1.335	.325	5.479
	Race_RR(5)	-15.671	5145.388	.000	1	.998	.000	.000	.
	Race_RR(6)	-.061	.515	.014	1	.906	.941	.343	2.583
	Gender			3.120	2	.210			
	Gender(1)	.004	.398	.000	1	.992	1.004	.460	2.189
	Gender(2)	1.821	1.032	3.116	1	.078	6.177	.818	46.646
	Constant	-5.730	.404	200.814	1	<.001	.003		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to COVID reasons, a binary logistic regression was conducted as shown in Figure 10. The dependent variable was *Leaving nursing for COVID reasons*. The predictor variables were *Age*, *Race*, and *Gender*. The analysis showed that neither of the variables of *Age* or *Race* were statistically significant

predictors of *Leaving nursing for COVID reasons.* None of the races within the analysis were statistically significant ($p > 0.05$) predictors of *Leaving nursing for COVID reasons* when compared to the baseline race of *White*. The analysis showed that Gender = *Male* was a positive statistically significant predictor of *Leaving nursing for COVID reasons* compared to the baseline gender of *Female* (B = 0.970, S.E. = 0.291, Wald = 11.150, df = 1, Exp(B) = 2.639, 95% C. I. = 1.493, 4.665, $p < 0.001$). Thus, nurses that identified as *Male* were 164% more likely to leave the nursing profession due to COVID-related reasons when compared to nurses who identified as *Female.* The data are depicted in Figure 10.

Figure 10

Evaluation of Nurses Leaving the Profession Due to COVID Reasons: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	.013	.084	.022	1	.882	1.013	.859	1.194
	Race_RR			5.098	6	.531			
	Race_RR(1)	.667	.594	1.259	1	.262	1.949	.608	6.247
	Race_RR(2)	-15.590	4223.117	.000	1	.997	.000	.000	.
	Race_RR(3)	.574	.722	.632	1	.427	1.775	.431	7.305
	Race_RR(4)	-.439	1.011	.189	1	.664	.644	.089	4.672
	Race_RR(5)	1.496	1.018	2.161	1	.142	4.464	.607	32.800
	Race_RR(6)	.479	.429	1.249	1	.264	1.615	.697	3.742
	Gender			11.150	2	.004			
	Gender(1)	.970	.291	11.150	1	<.001	2.639	1.493	4.665
	Gender(2)	-15.544	6554.532	.000	1	.998	.000	.000	.
	Constant	-5.797	.413	197.268	1	<.001	.003		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to temporary disability or long-term illness, a binary logistic regression was conducted as shown in Figure 11. The dependent variable was *Leaving nursing due to temporary disability or long-term illness*. The

predictor variables were *Age*, *Race*, and *Gender*. The analysis showed that neither of the variables of *Race* or *Gender* were statistically significant predictors of *Leaving nursing due to temporary disability or long-term illness.* None of the races within the analysis were statistically significant ($p > 0.05$) predictors of *Leaving nursing due to temporary disability or long-term illness* when compared to the baseline race of *White*. Controlling *Race*, the analysis showed *Age* as a positive statistically significant predictor of *Leaving nursing due to temporary disability or long-term illness* (B = 0.247, S.E. = 0.119, Wald = 4.353, df = 1, Exp(B) = 1.281, 95% C. I. = 1.015, 1.616, $p < 0.05$). For every age bracket increase, nurses were 28% more likely to leave the profession due to temporary disability or long-term illness. The data are shown in Figure 11.

Figure 11

Evaluation of Nurses Leaving the Profession Due to Temporary Disability or Long-term Illness: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	.247	.119	4.353	1	.037	1.281	1.015	1.616
	Race_RR			5.204	6	.518			
	Race_RR(1)	.931	.728	1.637	1	.201	2.537	.610	10.563
	Race_RR(2)	-15.069	4208.104	.000	1	.997	.000	.000	.
	Race_RR(3)	1.220	.728	2.812	1	.094	3.389	.814	14.111
	Race_RR(4)	-14.929	2008.782	.000	1	.994	.000	.000	.
	Race_RR(5)	-15.094	5098.218	.000	1	.998	.000	.000	.
	Race_RR(6)	-.892	1.013	.775	1	.379	.410	.056	2.985
	Gender			1.888	2	.389			
	Gender(1)	-1.391	1.013	1.888	1	.169	.249	.034	1.810
	Gender(2)	-15.142	6428.884	.000	1	.998	.000	.000	.
	Constant	-7.207	.617	136.330	1	<.001	.001		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to permanent disability leave, a binary logistic regression was conducted as shown in Figure 12. The dependent variable

was *Leaving nursing due to permanent disability leave*. The predictor variables were *Age*, *Race*, and *Gender*. The analysis showed that neither of the variables of *Age* or *Gender* were statistically significant predictors of *Leaving nursing due to permanent disability leave.* None of the races within the analysis were statistically significant ($p > 0.05$) predictors of *Leaving nursing due to permanent disability leave* when compared to the baseline race of *White*. The data are shown in Figure 12.

Figure 12

Evaluation of Nurses Leaving the Profession Due to Permanent Disability Leave: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	.005	.198	.001	1	.981	1.005	.682	1.481
	Race_RR			2.151	6	.905			
	Race_RR(1)	-13.997	2003.604	.000	1	.994	.000	.000	.
	Race_RR(2)	-13.972	4244.005	.000	1	.997	.000	.000	.
	Race_RR(3)	1.529	1.042	2.151	1	.143	4.612	.598	35.573
	Race_RR(4)	-14.019	2031.922	.000	1	.994	.000	.000	.
	Race_RR(5)	-13.985	5135.308	.000	1	.998	.000	.000	.
	Race_RR(6)	-13.945	1218.197	.000	1	.991	.000	.000	.
	Gender			.556	2	.757			
	Gender(1)	.573	.768	.556	1	.456	1.773	.394	7.986
	Gender(2)	-13.778	6388.581	.000	1	.998	.000	.000	.
	Constant	-7.310	.961	57.881	1	<.001	.001		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to wages, a binary logistic regression was conducted as shown in Figure 13. The dependent variable was *Leaving nursing due to wages*. The predictor variables were *Age*, *Race*, and *Gender*. The analysis showed *Age* was a statistically significant predictor of *Leaving nursing to wages.* The data are shown in Figure 13. Controlling *Race*, the analysis showed *Age* as a negative statistically significant predictor of *Leaving nursing due to wages* (B = -0.235, S.E. =

0.033, Wald = 50.341, df = 1, Exp(B) = 0.791, 95% C. I. = 0.741, 0.844, $p < 0.001$). For every age bracket of increase, nurses were 21% less likely to leave nursing due to wages.

Controlling for *Age*, the analysis showed Race = *Other* as a positive statistically significant predictor of *Leaving nursing due to wages* compared to the baseline race of *White* (B = 1.120, S.E. = 0.239, Wald = 22.040, df = 1, Exp(B) = 3.064, 95% C. I. = 1.920, 4.890, $p < 0.001$). Thus, nurses that identified as *Other* for race were 206% more likely to leave the nursing profession due to wages when compared with *White* nurses. Controlling for *Age*, the analysis showed Race = *Asian* as a positive statistically significant predictor of *Leaving nursing due to wages* compared to the baseline race of *White* (B = 0.618, S.E. = 0.248, Wald = 6.211, df = 1, Exp(B) = 1.856, 95% C. I. = 1.141, 3.018, $p < 0.05$). Thus, nurses that identified as *Asian* were 86% more likely to leave the nursing profession due to wages when compared with *White* nurses. All other races within the analysis were not statistically significant ($p > 0.05$) predictors of *Leaving due to wages* when compared to the baseline race of *White*.

The analysis showed that Gender = *Male* was a positive statistically significant predictor of *Leaving nursing due to wages* compared to the baseline gender of *Female* (B = 0.494, S.E. = 0.136, Wald = 13.300, df = 1, Exp(B) = 1.639, 95% C. I. = 1.257, 2.138, $p < 0.001$). Thus, nurses that identified as *Male* were 64% more likely to leave the nursing profession due to wages when compared to nurses who identified as *Female.* The data are depicted in Figure 13.

Figure 13

Evaluation of Nurses Leaving the Profession Due to Wages: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	-.235	.033	50.341	1	<.001	.791	.741	.844
	Race_RR			30.006	6	<.001			
	Race_RR(1)	.492	.261	3.534	1	.060	1.635	.979	2.729
	Race_RR(2)	.001	.718	.000	1	.999	1.001	.245	4.091
	Race_RR(3)	1.120	.239	22.040	1	<.001	3.064	1.920	4.890
	Race_RR(4)	.618	.248	6.211	1	.013	1.856	1.141	3.018
	Race_RR(5)	-.271	1.010	.072	1	.788	.762	.105	5.522
	Race_RR(6)	.014	.209	.004	1	.947	1.014	.673	1.528
	Gender			13.978	2	<.001			
	Gender(1)	.494	.136	13.300	1	<.001	1.639	1.257	2.138
	Gender(2)	.679	.733	.859	1	.354	1.972	.469	8.292
	Constant	-2.807	.148	357.740	1	<.001	.060		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to work culture, a binary logistic regression was conducted as shown in Figure 14. The dependent variable was *Leaving nursing due to work culture.* The predictor variables were *Age*, *Race*, and *Gender*. The analysis showed that *Age* was not a statistically significant predictor of *Leaving nursing due to work culture.*

Controlling for *Age*, the analysis showed Race = *Other* as a positive statistically significant predictor of *Leaving nursing due to work culture* compared to the baseline race of *White* (B = 1.223, S.E. = 0.219, Wald = 31.217, df = 1, Exp(B) = 3.397, 95% C. I. = 2.212, 5.216, $p < 0.001$). Thus, nurses that identified as *Other* for race were 240% more likely to leave the nursing profession due to work culture when compared with *White* nurses. Controlling for *Age*, the analysis also showed Race = *Multiracial* as a positive

statistically significant predictor of *Leaving nursing due to work culture* compared to the baseline race of *White* (B = 0.651, S.E. = 0.235, Wald = 7.652, df = 1, Exp(B) = 1.918, 95% C. I. = 1.209, 3.043, $p < 0.05$). Thus, nurses that identified as *Multiracial* for race were 92% more likely to leave the nursing profession due to work culture when compared with *White* nurses. All other races within the analysis were not statistically significant ($p > 0.05$) predictors of *Leaving nursing due to work culture* when compared to the baseline race of *White*. The data are shown in Figure 14.

The analysis showed that Gender = *Nonbinary, nonconforming, genderqueer, transgender* was a positive statistically significant predictor of *Leaving nursing due to work culture* compared to the baseline gender of *Female* (B = 1.404, S.E. = 0.536, Wald = 6.849, df = 1, Exp(B) = 4.071, 95% C. I. = 1.423, 11.648, $p < 0.05$). Thus, nurses that identified as *Gender nonbinary, nonconforming, genderqueer, transgender* were 307% more likely to leave the nursing profession due to work culture when compared to nurses who identified as *Female.* The data are depicted in Figure 14.

Figure 14

Evaluation of Nurses Leaving the Profession Due to Work Culture: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	-.055	.032	2.932	1	.087	.947	.889	1.008
	Race_RR			42.538	6	<.001			
	Race_RR(1)	.651	.235	7.652	1	.006	1.918	1.209	3.043
	Race_RR(2)	-.864	1.008	.735	1	.391	.421	.058	3.037
	Race_RR(3)	1.223	.219	31.217	1	<.001	3.397	2.212	5.216
	Race_RR(4)	.163	.298	.300	1	.584	1.177	.657	2.109
	Race_RR(5)	-.439	1.009	.189	1	.664	.645	.089	4.662
	Race_RR(6)	-.382	.236	2.609	1	.106	.683	.429	1.085
	Gender			8.724	2	.013			
	Gender(1)	.210	.145	2.115	1	.146	1.234	.929	1.638
	Gender(2)	1.404	.536	6.849	1	.009	4.071	1.423	11.648
	Constant	-3.420	.153	498.786	1	<.001	.033		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to workload, a binary logistic regression was conducted as shown in Figure 15. The dependent variable was *Leaving nursing due to workload*. The predictor variables were *Age*, *Race*, and *Gender*. Controlling *Race*, the analysis showed *Age* as a negative statistically significant predictor of *Leaving nursing due to workload* (B =-0.090, S.E. = 0.028, Wald = 10.734, df = 1, Exp(B) = 0.914, 95% C. I. = 0.866, 0.964, $p < 0.05$). For every age bracket of increase, the odds for nurses leaving due to workload decreased by 8.6%.

Controlling for *Age*, the analysis showed Race = *Multiracial* as a positive statistically significant predictor of *Leaving nursing due to workload* compared to the baseline race of *White* (B = 0.690, S.E. = 0.201, Wald = 11.796, df = 1, Exp(B) = 1.994, 95% C. I. = 1.345, 2.957, $p < 0.001$). Thus, nurses that identified as *Multiracial* were 99% more likely to leave the nursing profession due to workload when compared with *White* nurses. Controlling for *Age*, the analysis also showed Race = *Other* as a positive

statistically significant predictor of *Leaving nursing due to workload* compared to the baseline race of *White* (B = 0.699, S.E. = 0.236, Wald = 8.799, df = 1, Exp(B) = 2.013, 95% C. I. = 1.268, 3.195, $p < 0.05$). Thus, nurses that identified as *Other* for race were 101% more likely to leave the nursing profession due to workload when compared with *White* nurses. Controlling for *Age*, the analysis showed Race = *Asian* as a positive statistically significant predictor of *Leaving nursing due to workload* compared to the baseline race of *White* (B = 0.454, S.E. = 0.224, Wald = 4.113, df = 1, Exp(B) = 1.575, 95% C. I. = 1.015, 2.443, $p < 0.05$). Thus, nurses that identified as *Asian* were 58% more likely to leave the nursing profession due to workload when compared with *White* nurses.

The analysis showed that Gender = *Male* was a positive statistically significant predictor of *Leaving nursing due to workload* compared to the baseline gender of *Female* (B = 0.312, S.E. = 0.120, Wald = 6.700, df = 1, Exp(B) = 1.366, 95% C. I. = 1.079, 1.729, $p < 0.05$). Thus, nurses that identified as *Male* were 37% more likely to leave the nursing profession due to workload when compared to nurses who identified as *Female.* The data are depicted in Figure 15.

Figure 15

Evaluation of Nurses Leaving the Profession Due to Workload: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	-.090	.028	10.734	1	.001	.914	.866	.964
	Race_RR			27.495	6	<.001			
	Race_RR(1)	.690	.201	11.796	1	<.001	1.994	1.345	2.957
	Race_RR(2)	.496	.463	1.151	1	.283	1.643	.663	4.069
	Race_RR(3)	.699	.236	8.799	1	.003	2.013	1.268	3.195
	Race_RR(4)	.454	.224	4.113	1	.043	1.575	1.015	2.443
	Race_RR(5)	-17.860	5140.851	.000	1	.997	.000	.000	.
	Race_RR(6)	-.304	.196	2.408	1	.121	.738	.502	1.083
	Gender			7.988	2	.018			
	Gender(1)	.312	.120	6.700	1	.010	1.366	1.079	1.729
	Gender(2)	.730	.607	1.445	1	.229	2.075	.631	6.823
	Constant	-2.955	.130	515.942	1	<.001	.052		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to an undesirable schedule, a binary logistic regression was conducted as shown in Figure 16. The dependent variable was *Leaving nursing due to undesirable schedule*. The predictor variables were *Age*, *Race*, and *Gender*. The analysis showed *Age* was a statistically significant predictor of *Leaving nursing due to undesirable schedule.* Controlling *Race*, the analysis showed *Age* as a negative statistically significant predictor of *Leaving nursing due to undesirable schedule* (B =-0.257, S.E. = 0.043, Wald = 36.302, df = 1, Exp(B) = 0.773, 95% C. I. = 0.711, 0.841, $p < 0.001$). For every age bracket of increase, nurses were 23% less likely to leave nursing due to an undesirable schedule.

Controlling for *Age*, the analysis showed Race = *Multiracial* as a positive statistically significant predictor of *Leaving nursing due to undesirable schedule*

compared to the baseline race of *White* (B = 0.617, S.E. = 0.314, Wald = 3.860, df = 1, Exp(B) = 1.853, 95% C. I. = 1.001, 3.429, $p < 0.05$). Thus, nurses that identified as *Multiracial* were 85% more likely to leave the nursing profession due to an undesirable schedule when compared with *White* nurses. Controlling for *Age*, the analysis showed Race = *Other* as a positive statistically significant predictor of *Leaving nursing due to undesirable schedule* compared to the baseline race of *White* (B = 0.791, S.E. = 0.346, Wald = 5.225, df = 1, Exp(B) = 2.205, 95% C. I. = 1.119, 4.344, $p < 0.05$). Thus, nurses that identified as *Other* for race were 121% more likely to leave the nursing profession due to an undesirable schedule when compared with *White* nurses. The data are depicted in Figure 16.

The analysis showed that Gender = *Male* was a positive statistically significant predictor of *Leaving nursing due to undesirable schedule* compared to the baseline gender of *Female* (B = 0.486, S.E. = 0.176, Wald = 7.651, df = 1, Exp(B) = 1.625, 95% C. I. = 1.152, 2.293, $p < 0.05$). Thus, nurses that identified as *Male* were 63% more likely to leave the nursing profession due to having an undesirable schedule when compared to nurses who identified as *Female.* The data are depicted in Figure 16.

Figure 16

Evaluation of Nurses Leaving the Profession Due to Undesirable Schedule: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	-.257	.043	36.302	1	<.001	.773	.711	.841
	Race_RR			8.879	6	.181			
	Race_RR(1)	.617	.314	3.860	1	.049	1.853	1.001	3.429
	Race_RR(2)	-.180	1.009	.032	1	.858	.835	.116	6.031
	Race_RR(3)	.791	.346	5.225	1	.022	2.205	1.119	4.344
	Race_RR(4)	-.008	.418	.000	1	.985	.992	.438	2.251
	Race_RR(5)	.251	1.011	.062	1	.804	1.285	.177	9.329
	Race_RR(6)	.005	.269	.000	1	.985	1.005	.594	1.701
	Gender			7.781	2	.020			
	Gender(1)	.486	.176	7.651	1	.006	1.625	1.152	2.293
	Gender(2)	.443	1.020	.189	1	.664	1.558	.211	11.507
	Constant	-3.230	.189	291.679	1	<.001	.040		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to a lack of benefits and employer support, a binary logistic regression was conducted as shown in Figure 17. The dependent variable was *Leaving nursing due to benefits and employer supports*. The predictor variables were *Age*, *Race*, and *Gender*. Controlling *Race*, the analysis showed *Age* as a negative statistically significant predictor of *Leaving nursing due to benefits and employer supports* (B = -0.135, S.E. = 0.044, Wald = 9.464, df = 1, Exp(B) = 0.873, 95% C. I. = 0.801, 0.952, $p < 0.05$). For every age bracket of increase, the odds for nurses leaving due to benefits and employer supports decreased by approximately 13%.

Controlling for *Age*, the analysis showed Race = *Other* as a positive statistically significant predictor of *Leaving nursing due to benefits and employer supports* compared to the baseline race of *White* (B = 1.063, S.E. = 0.315, Wald = 11.369, df = 1, Exp(B) =

2.894, 95% C. I. = 1.560, 5.368, $p < 0.001$). Thus, nurses that identified as *Other* for race were 189% more likely to leave the nursing profession due to benefits and employer supports when compared with *White* nurses. All other races within the analysis were not statistically significant ($p > 0.05$) predictors of *Leaving nursing due to benefits and employer supports* when compared to the baseline race of *White*. The data are shown in Figure 17.

The analysis showed that Gender = *Gender nonbinary, nonconforming, genderqueer, transgender* was a positive statistically significant predictor of *Leaving nursing due to benefits and employer supports* compared to the baseline *Female* (B = 1.697, S.E. = 0.612, Wald = 7.687, df = 1, Exp(B) = 5.458, 95% C. I. = 1.644, 18.118, $p < 0.05$). Thus, nurses that identified as *Gender nonbinary, nonconforming, genderqueer, transgender* were 446% more likely to leave the nursing profession due to benefits and employer supports when compared to nurses who identified as *Female.* The data are shown in Figure 17.

Figure 17

Evaluation of Nurses Leaving the Profession Due to Lack of Benefits and Employer Support: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	-.135	.044	9.464	1	.002	.873	.801	.952
	Race_RR			23.204	6	<.001			
	Race_RR(1)	.574	.329	3.046	1	.081	1.776	.932	3.385
	Race_RR(2)	.938	.594	2.491	1	.114	2.554	.797	8.182
	Race_RR(3)	1.063	.315	11.369	1	<.001	2.894	1.560	5.368
	Race_RR(4)	.622	.328	3.591	1	.058	1.863	.979	3.545
	Race_RR(5)	.266	1.011	.069	1	.793	1.304	.180	9.457
	Race_RR(6)	-.711	.385	3.403	1	.065	.491	.231	1.045
	Gender			10.398	2	.006			
	Gender(1)	.333	.189	3.106	1	.078	1.395	.963	2.019
	Gender(2)	1.697	.612	7.687	1	.006	5.458	1.644	18.118
	Constant	-3.771	.204	341.783	1	<.001	.023		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

To evaluate nurses leaving the profession due to other reasons, a binary logistic regression was conducted as shown in Figure 18. The dependent variable was *Leaving nursing for other reason*. The predictor variables were *Age*, *Race*, and *Gender*. *Gender* was found to not be a statistically significant predictor of *Leaving nursing for other reason.* The analysis showed *Age* was a statistically significant predictor of *Leaving nursing for other reason.* Controlling *Race*, the analysis showed *Age* as a positive statistically significant predictor of *Leaving nursing for other reason* (B = 0.195, S.E. = 0.048, Wald = 16.597, df = 1, Exp(B) = 1.216, 95% C. I. = 1.107, 1.335, $p < 0.001$). For every age bracket of increase, the odds for nurses leaving due to other reasons increased by approximately 22%.

Controlling for *Age*, the analysis showed Race = *Multiracial* as a positive statistically significant predictor of *Leaving nursing for other reason* compared to the baseline race of *White* (B = 0.947, S.E. = 0.302, Wald = 9.815, df = 1, Exp(B) = 2.577, 95% C. I. = 1.425, 4.659, $p < 0.05$). Thus, nurses that identified as *Multiracial* were 158% more likely to leave the nursing profession due to other reasons (not listed) when compared with *White* nurses. Controlling for *Age*, the analysis also showed Race = *Other* as a positive statistically significant predictor of *Leaving nursing for other reason* compared to the baseline race of *White* (B = 0.837, S.E. = 0.366, Wald = 5.241, df = 1, Exp(B) = 2.310, 95% C. I. = 1.128, 4.730, $p < 0.05$). Thus, nurses that identified as *Other* for race were 131% more likely to leave the nursing profession due to other reasons (not listed) when compared with *White* nurses. The data are shown in Figure 18.

Figure 18

Evaluation of Nurses Leaving the Profession Due to Other Reasons: A Binary Logistic Regression Analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Age	.195	.048	16.597	1	<.001	1.216	1.107	1.335
	Race_RR			19.521	6	.003			
	Race_RR(1)	.947	.302	9.815	1	.002	2.577	1.425	4.659
	Race_RR(2)	1.009	.592	2.903	1	.088	2.742	.859	8.748
	Race_RR(3)	.837	.366	5.241	1	.022	2.310	1.128	4.730
	Race_RR(4)	-.116	.508	.052	1	.820	.891	.329	2.411
	Race_RR(5)	.257	1.011	.064	1	.800	1.292	.178	9.378
	Race_RR(6)	.445	.236	3.550	1	.060	1.560	.982	2.478
	Gender			1.769	2	.413			
	Gender(1)	.233	.206	1.285	1	.257	1.263	.844	1.890
	Gender(2)	.740	1.022	.524	1	.469	2.095	.283	15.533
	Constant	-5.326	.247	464.592	1	<.001	.005		

a. Variable(s) entered on step 1: Age, Race_RR, Gender.

Summary of Research Question Results and Hypothesis

The research question sought to determine if there was a statistical difference in the reasons for leaving the nursing profession based on *Age*, *Race*, and *Gender* for Michigan nurses. This question was answered based on a *p*-value of 0.05, and those variables that produced a significance value of less than 0.05 were considered significant. Differences were noted in reasons for leaving nursing when looking at the variables of *Age*, *Race*, and *Gender*, thus the alternative hypothesis was met, and the null hypothesis was rejected.

Table 4

Summary of the Reasons for Leaving the Nursing Workforce

Reasons for leaving	Age	Race	Gender
Retirement	Significant	Significant	NOT significant
Caring for home or family	Significant	Significant	Significant
Enrolled in education program	Significant	Significant	NOT significant
Difficulty finding a nursing position	NOT significant	Significant	NOT significant
Stress/burnout	Significant	Significant	Significant
Difficulties with EMR/new technology	Significant	NOT significant	Significant
Violence/safety issues	Significant	Significant	Significant
Relocating/moving to another area	NOT significant	Significant	NOT significant
COVID-related	NOT significant	NOT significant	Significant
Temporary disability/long-term illness	Significant	NOT significant	NOT significant
Permanent disability leave	NOT significant	NOT significant	NOT significant
Wages	Significant	Significant	Significant
Work culture	NOT significant	Significant	Significant
Workload	Significant	Significant	Significant
Undesirable schedule	Significant	Significant	Significant
Benefits and employer supports	Significant	Significant	Significant
Other	Significant	Significant	NOT significant

There was a difference noted in *Age* among the reasons for leaving nursing, as some older nurses were found to be less likely to leave nursing than younger nurses based on various reasons. For example, nurses were less likely to leave due to being enrolled in an education program as they aged but were more likely to leave due to retirement. For each age bracket of increases, nurses were also less likely to leave the profession due to having an undesirable schedule. The variable of *Race* also indicated some differences in reasons for leaving nursing among the survey respondents. Nurses who identified as *Multiracial* were 177% more likely to leave nursing to care for home/family when compared to *White* nurses. Nurses who identified as *Other* for race were more likely to leave nursing due to stress/burnout and due to work culture when compared to *White* nurses.

Summary

Section 3 displayed the results and the findings of this study, including the collection process for the data, results of the descriptive statistics, and the binary logistic regression used to determine the association among *Age, Race,* and *Gender* and reasons for leaving nursing. The section also depicted the results and determined the relationship between the independent and dependent variables using statistical analysis.

In Section 4, I will provide an assessment and interpretation of the results and findings of the research question. This section will emphasize the results in light of the conceptual framework of the Nursing Neuman Systems Model. Section 4 will explain the limitations, recommendations, and conclusions of the study.

Section 4: Application to Professional Practice and Implication for Social Change

The primary goal of the study was to address the gap in research pertaining to the impending nursing shortage in the United States as it relates to reasons that nurses are choosing to leave the profession and what can be done to rectify the shortage. The results from the binary logistic regression analysis indicated major differences in reasons for leaving nursing based on the variables of age, race, and gender in Michigan community hospitals. The findings indicated that there were several overwhelming reasons that nurses are choosing to leave the field, and some of these reasons are centered around specific ages and races.

In section 4, I provide the interpretation of the findings, limitations of the study, and recommendations for future studies and research on this topic. The remainder of this section includes a discussion of the relevance of the study for the healthcare field and social change. This section also assesses the results of the study using the framework of the Nursing Neuman Systems Model for understanding how stressors in the workplace affect well-being and the efficiency of the nurse as a whole.

Interpretation of the Findings

Research Question Analysis

The study findings showed significant differences in reasons given for leaving the nursing profession based on age, race, and gender among nurses in Michigan hospitals.

This question was answered based on a *p*-value of 0.05, and those variables that produced a significance value of less than 0.05 were considered significant. Differences were noted in reasons for leaving nursing when looking at the variables of age, race, and

gender, thus the alternative hypothesis was met, and the null hypothesis suggesting that were no differences in reasons for leaving was rejected.

The results of the data analysis indicated that there were major differences in reasons for Michigan nurses choosing to leave the profession based on age, race, and gender. Experts agree that the shortage of nurses in the United States will continue to rise in the coming years, causing catastrophic outcomes for healthcare organizations and patient care. However, previous studies have not delved into the reasons that nurses are choosing to leave to delineate trends and patterns so that they can pinpoint necessary changes and work to retain skilled workers. Dissatisfaction in the work environment in addition to the reasons for leaving given in this study must be addressed in order to combat the nursing shortage, as attracting new nurses alone will not provide a dramatic enough impact (Ferren, 2023). The study aligns with previous studies, as it indicates that many nurses are leaving due to burnout, inadequate staffing leading to stress, and poor mental and physical wellness (Whittaker et al., 2018). The reasons that nurses gave in this survey corroborated with nationwide reasons experts have provided for high turnover rates in the profession.

Analysis of Covariates

The results showed an association between age, race, and gender and the reasons given for leaving nursing. The covariates, or reasons for leaving nursing, revealed statistically significant differences among age, race, and gender of the nurses analyzed. When assessing some of the reasons for leaving nursing, age, race, gender were not always significant. There were some reasons for leaving nursing that did not show

statistically significant differences among the dependent variables. However, the null hypothesis that there was no difference among age, race, and gender was rejected, and the alternative hypothesis was met.

Some reasons for leaving nursing showed statistical significance in all three variables of age, race, and gender. These categories are vital areas that healthcare administrators should delve into in a quest to enact change. For example, workload, undesirable schedule, and benefits and employee support were reasons nurses chose to leave the profession that were significant for all three variables of age, race, and gender. Basically, multiple races and multiple genders chose to leave nursing for these specific reasons. These categories would be an ideal place to start a search for problem areas that need remediation that could ultimately help healthcare organizations to retain their skilled workers. If change is introduced in an area that seems to be an issue across the board, then healthcare workers may be persuaded to stay in the field, thus lowering the turnover rate for nurses.

Findings to the Literature

The findings of this study reaffirmed the critical issue of high turnover in the nursing profession. The results indicated that there are various reasons that nurses are choosing to leave the field, and that age, race, and gender play a role in some of these turnover patterns. The study showed that nurses who identified as Multiracial were 177% more likely to leave nursing due to caring for home or family when compared with White nurses. Multiracial nurses were also 217% more likely to leave nursing due to being enrolled in an education program and 121% more likely to leave due to violence/safety

issues when compared with White nurses. Additionally, Black nurses were 269% more likely to leave nursing due to difficulty finding a nursing position when compared with White nurses. For every Age bracket of increase, the odds of nurses leaving the profession due to difficulties using EMR/new technology increased by about 60%. Healthcare administrators should work to alleviate the reasons for leaving nursing, such as violence/safety issues and difficulty with new technologies. Some reasons given for leaving are out of the scope of anyone's control, such as leaving due to caring for home/family, but some issues can be remediated with specific tactics and teamwork.

Findings to Theory

Other experts and researchers have studied the impending nursing shortage and the various causes and associated issues. This study was based on the Nursing Neuman Systems Model of understanding the connection between a person's environment and his/her well-being. People, in this case nurses, are complex systems and are products of environmental factors, stressors, and the circumstances surrounding them (Montano, 2020). When nurses are unable to adequately handle stressors and other negative environmental aspects, they are less likely to remain in the healthcare field. This conceptual model emphasizes the importance of reducing stress factors so that optimum health for all parties can be achieved (Ross & Bourbonnais, 1985). If nurses more fully understand the impact of one's environment, they can then better maintain their own personal well-being (Hannoodee & Dhamoon, 2023). When nurses are mentally and physically healthy, the patients they serve will receive a higher quality of care.

Limitations of the Study

The data used in this study were retrieved from only Michigan hospitals and did not encompass data from other states. The study focused on registered nurses and licensed practical nurses in these hospitals and did not analyze any other professions within the hospital setting. Another limitation of this study is that while trends were recognized in certain races and genders and their reasons given for leaving nursing, no other details were provided. For example, I was unable to delve into any deeper explanations for how/why some nurses wanted more support at work, or in what specific ways stress and burnout ultimately pushed other workers to desire to leave the profession. I can only surmise on the details behind the reasons given for leaving, but it might be helpful to gather a more thorough understanding of the specific hurdles that these workers faced before they ultimately made the crucial decision to leave.

Recommendations

The limitations of this study pinpoint a need for future researchers to potentially analyze issues related to certain races of nurses leaving the profession. In the United States, Hispanics accounted for about 71% of population growth between 2022 and 2023 (U.S. Census Bureau, 2024). This ethnic group is one of the fastest growing people groups, thus a large prevalence of nurses who fit into this race category would be extremely beneficial for healthcare organizations. When patients are choosing their care, they often find it more comfortable to be treated by healthcare professionals who can relate to them in appearance. Patient comfort and trust in their healthcare providers makes an immense impact on their health outcomes and adherence to treatment. Consequently,

future studies could work to find a more detailed understanding of reasons that specific races are leaving the nursing field. These reasons for leaving would then give healthcare administrators further avenues for action and positive change moving forward when seeking to not only attract workers, but also how to retain them once hired.

Future research would delve into the reasons given for leaving nursing that were found to be statistically significant for all three variables of age, race, and gender. For example, workload, employee benefits and support, caring for home or family, stress/burnout, violence/safety issues, and undesirable schedule were all reasons given that were statistically significant based on age, race, and gender. These topics or reasons for leaving could be further studied to determine the details related to how change or modifications surrounding these issues could affect turnover rate or cause nurses to decide to stay in the field. If multiple races, genders, and ages of nurses are struggling with the same reasons for desiring to leave nursing, then this obviously highlights a concern that should be further analyzed in order to bring about positive adjustments in the healthcare industry.

Implications for Professional Practice and Social Change

The impending nursing shortage introduces an area for needed change in the healthcare setting. The high turnover rate of nurses is leading to a lesser quality of care for patients, as burnout and stress are rampant in the workplace. Once healthcare leaders acquire a more thorough grasp of the reasons that nurses are choosing to leave their careers, they will be more equipped to address these issues and to offer positive change in their organizations. When nurses feel that their needs are being met in the workplace,

they will then be more able to serve their patients with the highest quality of care, as they themselves will be healthy and thriving. A higher quality of care results in improved patient health outcomes.

Professional Practice

Healthcare leaders must work to better understand the negative impact that a stressful work environment can have on their workers. Not all problems can be alleviated that lead to nurses leaving the profession, but where possible, healthcare administrators should strive to provide support for their workers. The results of this study show that some nurses choose to leave for specific reasons based on age, race, and gender, and there are patterns present that indicate where changes should be implemented. If specific reasons for leaving are prevalent over the course of time, this would pinpoint an area of needed change.

Positive Social Change

Healthcare organizations should hold positive patient health outcomes as a primary goal for which to strive. When patients receive a high quality of care, then communities and families can thrive and flourish. However, when the workers in healthcare facilities are struggling to maintain their own mental and physical prowess, they are unable to offer the best possible care to the patients they serve. This results in nurses leaving the profession to search for other employment. High turnover and low numbers of nurses entering the field dramatically affects the level of treatment that can be offered, and patients will ultimately suffer due to short staffing. When looking at the reasons nurses gave for choosing to leave, there are several that were significant across

the board for multiple ages, races, and genders. These reasons are an excellent place to start searching for ways to enact positive change in the healthcare setting that will ultimately bring about change in families and communities. A thorough understanding of why nurses are leaving and working to improve these struggles will positively impact patient health outcomes and therefore stimulate positive social change.

Conclusion

This study uncovered connections between reasons that nurses are choosing to leave the profession based on age, race, and gender. The study indicated that gender influenced some of the reasons given for leaving, whereas race was a more significant factor behind nurses exiting the profession. Age influenced departure in predictable contexts, such as pursuing education or caregiving for family members. Several reasons were cited that held significance across age, race, and gender variables.

Further research is recommended to explore methods for attracting individuals from various ethnic groups to the nursing profession, considering the prevalence of these groups in the population. Furthermore, future research should examine the factors contributing to nurses' decisions to leave their positions due to burnout, other unlisted reasons, or insufficient support and benefits from employers. Understanding these factors in greater detail may reveal additional challenges that administrators need to address. This study provides a detailed guide for healthcare administrators to examine the trends affecting nurses' decisions to leave the profession, with an emphasis on how these reasons are associated with age, race, and gender, thereby supporting the implementation of beneficial workplace practices that contribute to positive social change.

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