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## Relationship Between Nurse Managers' Cultural Humility Practices and Nurse Retention

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*Walden University*

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# Walden University

College of Management and Human Potential

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Jessica Scharfenberg

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Walden University  
2023

Abstract

Relationship Between Nurse Managers' Cultural Humility Practices and Nurse Retention

by

Jessica Scharfenberg

MPH, Concordia University, 2015

BSN, Edgewood College, 2011

Doctoral Study Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Business Administration

Walden University

July 2023

## Abstract

Some hospital administrators experience yearly loss of human capital, resulting in economic and noneconomic consequences that require resource reallocation to sustain operations. Grounded in the cultural humility theory, the purpose of this quantitative correlational study was to examine the relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, (e) supportive interaction, and nurse turnover intention. Participants included 142 registered nurses working in the Midwest United States. Data were collected using Foronda's Cultural Humility Scale and the Michigan Organizational Assessment Questionnaire. Results of multiple regression analysis indicated the model could significantly predict nurse turnover intentions,  $F(5, 135) = 5.285, p < .001, R^2 = .164$ . Supportive interaction was the only significant predictor ( $t = -3.003, p = .003$ ). A key recommendation is for healthcare leaders to implement cultural humility practices including supportive interactions to drive nurse retention efforts. Implications for social change include increased health system sustainability and safe healthcare accessibility for consumers.

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## Dedication

This work is dedicated to Olsen Lariat and Ivan Warren. Thank you for allowing Mom the patience, grace, and time to complete her doctoral studies when you would have much rather been baking cakes and exploring the outdoors. Please know in life, no dream is too big and no goal is too far. And to my husband, Thomas, thank you for being the calm to my storm and the wind in my sails. You can finally say you are married to a doctor.

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## Section 1: Foundation of the Study

In this section, I outline the research as follows: the background of the problem including why there is a business problem, the problem statement, the purpose statement, and the research question with hypotheses. I also address the theoretical framework used to guide the study, definitions of terms, assumptions, limitations, delimitations, and significance of the study. Finally, I provide a comprehensive literature review of theoretical frameworks and the research problem, including why the business problem is critical and what researchers have studied in the field.

### **Background of the Problem**

Registered nurses are the most significant healthcare professional group in the United States. Chi (2020), Muir et al. (2021), and Nei et al. (2015) described the registered nurses' responsibilities as ensuring patient care and safety across all healthcare settings through patient assessment, intervention, monitoring, and clinical decision making. However, the healthcare professional group faces growth, shortages, and turnover challenges.

Nursing staff turnover refers to the percentage of nurses who leave an organization over a set period, most often a year. Jones (2008), Jones and Gates (2007), and Nei et al. (2015) described nursing staff turnover as a recurring problem for healthcare organizations. Nursing turnover dramatically impacts healthcare organizations.

Nursing turnover has both economic and noneconomic consequences associated with it. Economic consequences include the cost of turnover, loss of nursing human capital, and the potential effects on quality care (Jones & Gates, 2007). Li and Jones

(2013) explained that the fiscal impact of nurse turnover ranges between \$40,000 and \$100,000 per nurse. The per-nurse impact amounts to \$856 million in cost to healthcare organizations and between \$1.4 and \$2.1 billion for society (Li & Jones, 2013). The significant financial impacts create an undue burden for healthcare organizations.

The noneconomic costs vary greatly. Jones and Gates (2007) and Muir et al. (2021) described noneconomic side effects including patient safety, adequate staff-to-patient ratios, nurse burnout, recruitment, and retention. The noneconomic costs could also be seen through poor patient satisfaction, adverse patient events, and decreased hospital safety ratings.

As elevated levels of turnover persist, nursing is also one of the fastest growing employment fields in the United States. Chi (2020) explained that the Bureau of Labor and Statistics projected that the occupation would add 511,500 jobs between 2018 and 2028. However, Nei et al. (2015) noted that the supply of qualified nurses does not meet the demand in healthcare, and when coupled with high turnover, costs increase.

Healthcare entities have focused their nursing retention efforts on mentor programs for new nurses. These entities have not explored the possibility of cultural humility practices as a nurse retention strategy. Therefore, the relationship between nurses' perceptions of the nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention needed examining.

### **Problem and Purpose**

As nursing staff shortages continue to grow, nursing staff attrition compounds the problem by creating undue management and financial burdens for healthcare organizations (Muir et al., 2021; Prakosa et al., 2020). The United States Bureau of Labor and Statistics (2022b) reported a 2021 median nurse wage of \$77,600, while Farrington et al. (2020) explained that each vacancy costs healthcare organizations between .75 and 2 times the median nurse salary, resulting in \$58,200 and \$155,200 per vacancy with overall annual entity costs in the millions. The general business problem included increased healthcare entity expenses, loss of human capital, and adverse patient care outcomes due to inappropriate nurse staffing levels (Scharfenberg, 2022). The specific business problem was that some healthcare leaders do not know the relationship between nurses' perceptions of the nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention.

The purpose of this quantitative correlational study was to examine the relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention. The independent variables were nurse perceptions of the nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. The dependent variable was nursing staff turnover intention. The target population comprised registered nurses of all healthcare entities in the Midwest United States. The implications for positive social change include

the potential to increase accessibility for local community members to timely and high-quality healthcare in the Midwest United States while increasing health system sustainability.

### **Population and Sampling**

The selected population for my study consisted of registered nurses who work in the Midwest United States. Twelve states make up the Midwest United States, including North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana, and Ohio. The participants must have currently worked as a registered nurse in one or more of the 12 identified states, with no exemptions for length of service as a registered nurse.

The broad population identified provided a sufficient number of participants to achieve the required sample size of 102. I completed a power analysis using the G\*Power Version 3.1.9.7 and determined the minimum appropriate size for this study to be 102 participants. Although there are two categories of sampling (random and nonprobabilistic), I used nonprobabilistic sampling. Bougie and Sekaran (2020) described random sampling as a technique in which each sample has an equal probability of being chosen to participate in the study. In contrast, nonprobabilistic sampling is a method in which researchers use a subjective approach to select units from a population (Saunders et al., 2016). Because my strategy for gaining access to participants was subjective, nonprobabilistic sampling was appropriate for the study.

Registered nurses were the unit of analysis, so this population was appropriate for answering the research questions because they could provide perceptions of their nurse



managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. I used social media, specifically LinkedIn and Facebook, to recruit registered nurse participants because there was access to diverse nurse users on those platforms. Recruitment through LinkedIn and Facebook also allowed me to access participants without the need to partner with healthcare entities or other agencies.

### **Nature of the Study**

I chose quantitative methodology for this study. Conducting quantitative research enables a researcher to use data to test a theory. This positivist approach allows for predetermined, highly structured, standardized data collection (Saunders et al., 2016). The researcher can then use the results to examine and identify quantitative or numerical changes associated with the population of interest, generalize the results to similar situations, provide predictions, and explain causal relationships (Saunders et al., 2016). The quantitative method was appropriate for the current study because the purpose of the study was to describe the relationship between nurses' perceptions of the nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions (independent variables) and nurse turnover intention (dependent variable). Researchers use the qualitative approach to make sense of a phenomenon's subjective and socially constructed meanings through nonstandardized data collection (Saunders et al., 2016). Because the qualitative approach was not appropriate for this study due to the data collection techniques and subjectivity, the mixed-methods approach was also not appropriate because it contains qualitative components.

I used a correlational design for this study. Correlational researchers seek to identify the extent to which two variables are related (Saunders et al., 2016). The correlational design was appropriate for the current study because the objective was to identify the relationship between nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions (independent variables) and nursing staff turnover intention (dependent variable) using Foronda's Cultural Humility Scale. Experimental and quasi-experimental designs are appropriate when the researcher seeks to study the probability of change of an independent variable causing a difference in a dependent variable (Saunders et al., 2016). Those designs also include an experimental and control group. The principal objective of the current study was to identify the relationship between variables, so the experimental and quasi-experimental methods were not appropriate.

### **Research Question**

To what extent is there a relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention?

### **Hypotheses**

*H*<sub>0</sub>: There is not a statistically significant relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention.

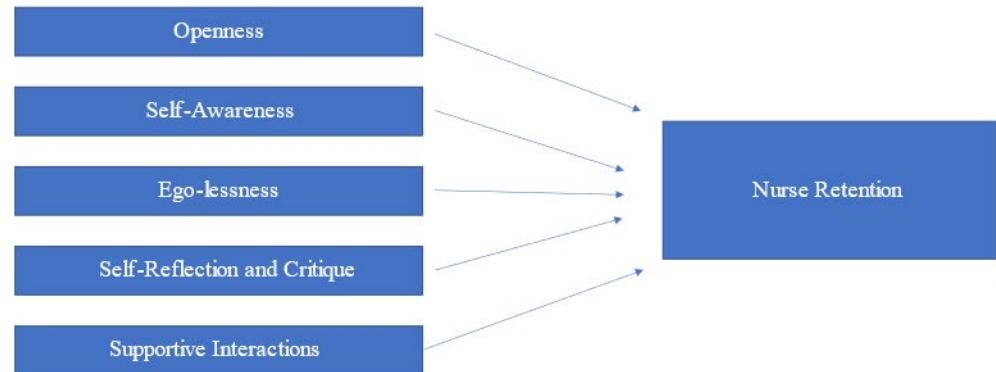
*H<sub>a</sub>*: There is a statistically significant relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention.

### **Theoretical Framework**

The theory for this study was the theory of cultural humility by Foronda (2020). Foronda developed the theory of cultural humility to guide leaders to thrive in a diverse and complex world. Foronda explained that conflict could be expected and embraced through awareness of diversity, power imbalances, and multiple layers of context that affect perspective. When a person faces cultural strife, they can respond with three actions: apply cultural humility, be culturally ambivalent, or be culturally destructive. Foronda described that cultural humility could help those in a position of power to have (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. The theory is related to the instrument I used. As applied to this study, the theory of cultural humility constructs served as the independent variables of Foronda et al.'s (2021) Cultural Humility Scale to identify the relationship between the perceptions of the nurses related to the constructs displayed by their nurse managers and nursing staff turnover intention. Figure 1 is a graphical depiction of the theory of cultural humility applied to examining nursing staff turnover intentions.

**Figure 1**

*Graphical Depiction of the Theory of Cultural Humility Applied to Nurse Retention*



### **Operational Definitions**

*Cultural humility*: The practice of critical self-reflection and lifelong learning, recognizing and addressing inherent power imbalances, seeking and honoring the knowledge within communities, and advocating for and maintaining institutional accountability (Tervalon & Murray-Garcia, 1998).

*Nurse turnover*: The voluntary or involuntary process of nursing staff leaving or transferring within the healthcare environment because of layoff, termination, or resignation (Jones, 1990a, 1990b).

*Power imbalance*: A disparity or inequity of one individual, group, or community compared to another (Foronda, 2020).

*Registered nurse:* A licensed individual who provides and coordinates patient care and educates patients and the public about health conditions while providing advice and emotional support to patients and their families (United States Bureau of Labor and Statistics, 2022a).

*Turnover intention:* The voluntary intention of an employee to leave a job or a company (Edwards-Dandridge et al., 2020).

### **Assumptions, Limitations, and Delimitations**

#### **Assumptions**

The researcher views and accepts assumptions as accurate without proof and validation (Berg, 1998; Ellis & Levy, 2009). There were several assumptions in the current study. One assumption was that the nurses who participated in the survey were currently working as a registered nurse. Another assumption was those who responded to the survey answered honestly and accurately. A third assumption was that the participants were truthful and precise in their perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. A final assumption was that the nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions played a role in nurse turnover intention.

#### **Limitations**

Limitations in quantitative research are potential weaknesses that are out of the researcher's control, such as the research design, finding constraints, and accessibility to participants (Creswell, 2005; Theofanidis & Fountouki, 2018). A limitation of the current

study was the use of a correlational design to determine whether one variable could predict the behavior of another variable. I could have addressed this limitation by using a mixed-methods design. If I had used a mixed-methods design, I could have conducted interviews with the participants' to understand their lived experience of the phenomenon. An association between variables does not necessitate a relationship between variables. Therefore, the correlational study was limited in nature. I could have explored connections between the variables if I had conducted experimental research.

Another limitation of my study was that the participants were from the Midwest United States, which prevented me from identifying correlations that could apply universally. I could have addressed the geographical limitation by conducting the research in another region to determine whether similar findings existed or by expanding the geographical area to the entire United States. The last limitation was that the perceptions of the nurse participants did not represent the perceptions of all nurses in the healthcare industry. I would have needed a larger, more diverse sample for a more representative sample of perceptions.

### **Delimitations**

Delimitations are boundaries or limits the researcher sets, such as theoretical framework, research objectives, and variables (Leedy & Ormrod, 2005; Theofanidis & Fountouki, 2018). The scope of the current study encompassed independent five variables: nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. One delimitation was that I focused only on nurses in the Midwest United States. Bougie and

Sekaran (2020) explained that insufficient population variety might impact the findings' generalizability. To mitigate this possibility, I accessed several nurses from various healthcare facilities to secure a minimum sample of 102 participants. Accessing nurses from multiple healthcare facilities helped me obtain the statistical power needed for the study's validity. The second delimitation was surveying only nurses because they play a significant role in healthcare operations. Although there are many other categories of healthcare staff, nurses are the fastest growing sector and are experiencing high turnover rates. The nurse participants worked in various healthcare settings but met specific criteria aligned with the research question to participate in the study. The inclusion criteria included registered nurses currently working in the Midwest United States. The third delimitation was the examination of the relationships between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention using two validated instruments because validated instruments enhance the research reliability.

### **Significance of the Study**

Registered nurses are the most significant healthcare professional group in the United States. Chi (2020), Muir et al. (2021), and Nei et al. (2015) described the registered nurses' responsibilities as ensuring patient care and safety across all healthcare settings through patient assessment, intervention, monitoring, and clinical decision making. However, this healthcare professional group faces growth, shortages, and turnover challenges (Chi, 2020). Healthcare entities have focused their nursing retention

efforts on mentor programs for new nurses. These entities have not explored the possibility of cultural humility practices as a nurse retention strategy.

### **Contribution to Business Practice**

Staffing shortages due to nursing turnover are a global problem that healthcare businesses face. Healthcare organizations could significantly reduce costs and management burdens through successful retention strategies (Farrington et al., 2020). Jönsson et al. (2021) and Schroyer et al. (2020) explained that recruiting and training nurses costs several thousand dollars and contributes to constant management problems. Farrington et al. (2020) projected that each nurse vacancy costs healthcare entities .75 to 2 times the median nurse salary, while Woodward and Willgerodt (2022) explained that the average facility nurse turnover in the United States is 28%. In addition, Argent et al. (2022), Loft and Jensen (2020), and Anselmo-Witzel et al. (2020) described nurse manager leadership characteristics as an influence on staff nurse retention. Therefore, successful nurse manager retention strategies are essential to increase nurse retention and decrease turnover-associated costs.

### **Implications for Social Change**

Increased nurse retention could result in positive social change through increased health system sustainability, access to timely and high-quality healthcare, and promotion of a healthy community. The benefits of a healthy community include lower chronic disease burden, improved health outcomes, and decreased economic burden associated with disease management and health inequity (Bauer, 2019). Chi (2020), Muir et al. (2021), and Nei et al. (2015) explained that nurses are responsible for ensuring patient



care and safety through assessments, interventions, monitoring, and clinical decision making. However, as retention decreases and healthcare entities struggle with the associated staffing shortages, patient care and safety are negatively impacted (Nei et al., 2015). Nurse manager retention strategies could result in increased patient safety, adequate staff-to-patient ratios, improved patient satisfaction, timely care, a healthier community, and decreased adverse patient events, all aspects of positive social change.

### **A Review of the Professional and Academic Literature**

Examining the literature allows a better understanding of the business problem and contributing factors. I used the literature review section to provide additional overviews regarding the theory of cultural humility, alternative theories, and the independent variables: (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. I continued the literature review by providing an overview of the dependent variable (nurse turnover intention) and finished with a review of nurse retention strategies, nurse retention challenges, nurse turnover issues, and the role of leadership in retention. In the study, I evaluated peer-reviewed and non-peer-reviewed journal articles and books during the literature review process, primarily obtained from a combination of research material from Walden University Library databases: ABI/Inform Collection, Academic Search Complete, Business Source Complete, EBSCOHost, Emerald Insight, ProQuest Central, ProQuest Dissertations & Theses Global, SAGE Research Methods Online, Science Diet, HERO, and PubMed. Keywords used to locate sources were *cultural humility*, *theory of cultural*

*humility, nurse turnover, nurse turnover intention, nurse retention challenges, and nurse retention strategies* (see Table 1).

**Table 1**

*Synopsis of Sources in the Literature Review*

Reference type	Shorter than 5 years	Longer than 5 years	Total	Cumulative %
Peer-reviewed journals	94	17	109	85%
Seminal and contemporary books	1	2	3	2%
Non-peer-reviewed journal	3	0	3	2%
Websites and others	12	2	14	11%
Total sources	110	21	131	100%

**Purpose and Hypotheses**

The purpose of this quantitative, correlational study was to examine the relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention. The hypotheses included the following:

$H_0$ : There is not a statistically significant relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention.

$H_a$ : There is a statistically significant relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention.

## **Theory of Cultural Humility**

The theory of cultural humility started as a seminal concept. Tervalon and Murray-Garcia (1998) developed the seminal work regarding cultural humility in response to healthcare provider interactions with patients. Until that point, the medical field operated under the premise of cultural competence. However, Tervalon and Murray-Garcia argued that cultural competence indicates an end point in learning. Tervalon and Murray-Garcia explained that the idea of cultural humility could assist providers with their interaction by using four guiding principles: being in a constant state of self-reflection and lifelong learning, recognizing and mitigating inherent power imbalances, seeking and honoring the expertise in the communities served, and maintaining institutional accountability. Foronda et al. (2016) further developed the ideas into a conceptual analysis and framework for cultural humility. Foronda et al. identified attributes of those who practice cultural humility, including openness, self-awareness, egolessness, supportive interaction, self-critique, and reflection. At the same time, diversity and power imbalances are the antecedents that prompt the practice of cultural humility. The outcomes of practicing cultural humility are empowerment, mutual benefit, partnership, optimal care, and respect.

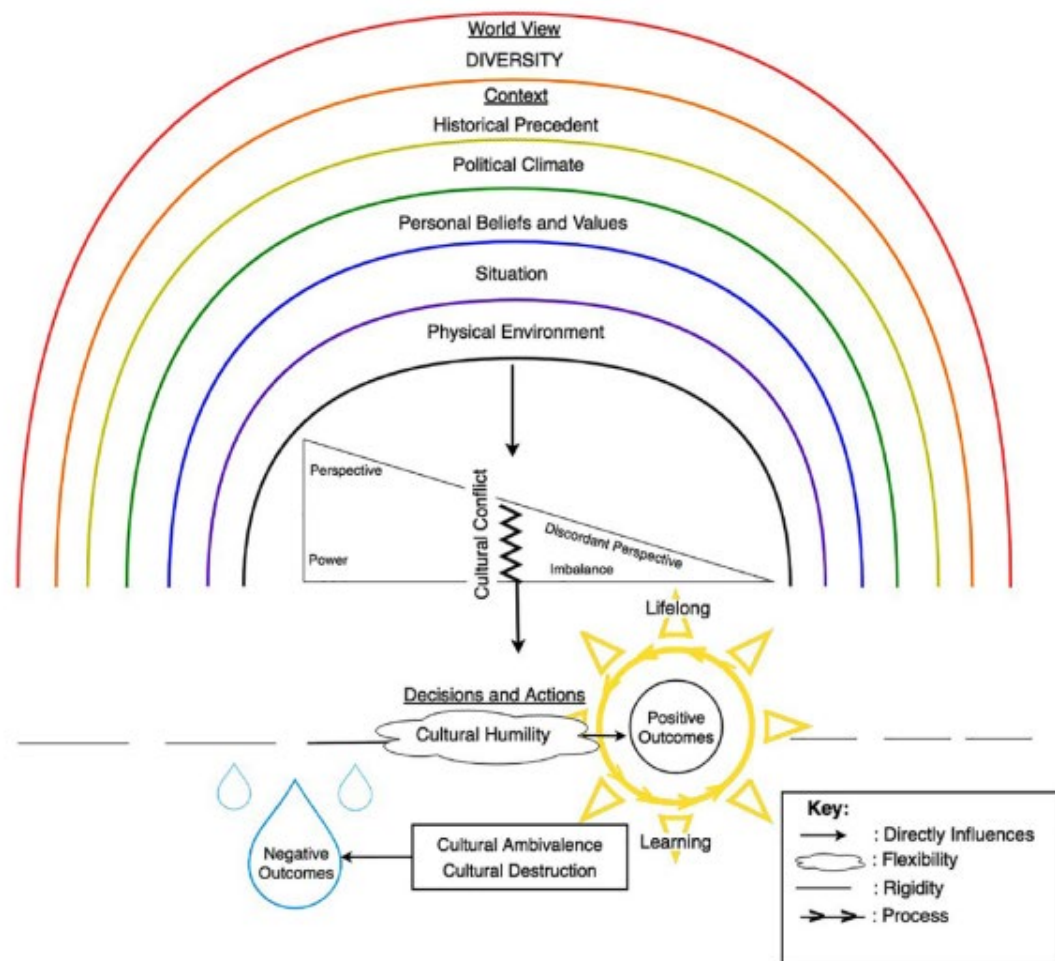
As diversity in the United States has grown, so has the concept and application of cultural humility. Foronda (2020) took the conceptual framework and developed the theory of cultural humility after realizing that leaders in numerous disciplines, such as education, business, medicine, and nursing, began identifying the importance of applying cultural humility for successful outcomes in diverse situations. Using previous work,

Foronda blended concepts from Leininger's (1988, 1996, 2002) cultural care theory and definitions from Tervalon and Murray-Garcia (1998), Cross et al. (1989), Yeager and Bauer-Wu (2013), and Foronda et al. (2016). Foronda created the theory of cultural humility and the corresponding rainbow model to help individuals in positions of power to be open, self-aware, egoless, and flexible. By displaying such characteristics, those in power positions can better thrive in a complex and diverse world.

Along with the theory of cultural humility is the model of cultural humility. Foronda (2020) developed the rainbow model of cultural humility to help individuals visually understand the theory of cultural humility. Figure 2 depicts the model. Foronda encouraged those who want to practice cultural humility to use the model to guide concepts, context, interrelationships, influences, and outcomes. Individuals must consider and assess historical precedents, political climate, personal beliefs, and the environment because they influence the context of situations. Foronda further explained that an individual's context and perspectives could lead to conflict. Once conflict arises and power imbalances occur, individuals must decide which actions to take, directly impacting the situation's outcome. Employing cultural humility will lead individuals to positive outcomes. In contrast, cultural ambivalence and destruction will result in adverse effects.

**Figure 2**

*Rainbow Model of Cultural Humility*



*Note.* From “A theory of cultural humility,” by C. Foronda, 2020, Reprinted with permission.

Five assumptions correspond with the theory. Foronda (2020) described the assumptions as (a) all humans are diverse from each other but part of a global community, (b) humans are altruistic by nature, (c) all humans have equal value, (d) cultural conflict is normal and expected, and (e) humans are lifelong learners. Furthermore, Foronda explained that conflict could be expected and embraced through awareness of diversity, power imbalances, and multiple layers of context that affect perspective. When a person faces cultural conflict, they can respond with three actions: apply cultural humility, be culturally ambivalent, or be culturally destructive. Foronda described that cultural humility could help those in a position of power to have (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. Outcomes of using cultural humility could include improved communication, satisfaction, empowerment, partnerships, respect, optimal care, health, and wellness, which meet basic human needs.

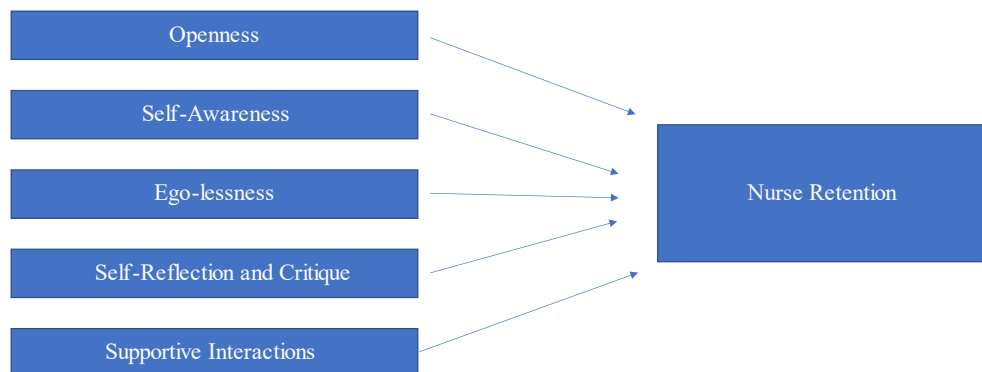
Although the theory of cultural humility is newer, researchers have cited the theory in numerous journal articles. Foronda et al. (2020), Sánchez-Ojeda et al. (2021), and Bourke et al. (2021) studied cultural humility in the medical field. They recommended that practitioners use cultural humility to reduce power imbalances and stigmatization and increase inclusivity. Qin and Chaimongkol (2021) also described Foronda's theory of cultural humility as one of six theories used by nursing educators to guide interventions of cultural competence in baccalaureate nursing programs. At the same time, Foronda et al. (2022) developed a tool kit for nurse educators to implement and teach cultural humility in nursing school programs while creating a more inclusive

learning environment based on the same principles. Similarly, Cox and Simpson (2020) and Luquis (2021) asserted that leaders of registered health professionals should include cultural humility as an essential component of continuing professional development and health education. These stress the importance of using cultural humility as an initial and continual learning opportunity to strengthen an individual's knowledge of the practice.

Researchers have also found that cultural humility practices enhance relationships where power imbalances could exist. Murray et al. (2022), Anderson et al. (2022), and Zhang et al. (2021) found the benefits of employing cultural humility theory concepts in supervisory relationships in psychotherapy, mentorships, and clinical supervision, including positive relationship outcomes between cultural humility and therapy, mentoring, and management. Nikpour et al. (2022) explained that newer frameworks are needed to account for the expertise of all. Traditional inclusive leadership frameworks only highlight the importance of inclusivity for nursing leaders. One more recent framework, Foronda's (2020) theory of cultural humility, centers on the expertise of all individuals, especially those from historically marginalized backgrounds. Improved leadership outcomes are possible by shifting the focus from traditional nursing leadership positions and power. Figure 3 is a graphical depiction of the theory of cultural humility applied to nursing staff turnover intentions.

**Figure 3**

*Graphical Depiction of the Theory of Cultural Humility Applied to Nurse Retention*

**Alternative Theories**

I investigated several alternative theories for my study. Alternatives included Leininger's (1988, 1996, 2002) cultural care theory, House's (1971) path-goal theory, Dansereau et al.'s (1975) leader-member exchange theory, and Burns's (1978) transformational leadership theory. Although there are many different approaches to leadership, Northouse (2022) described most as trait based, skills based, behavioral, or situational. Foronda's (2020) theory of cultural humility differs because the leader focuses on being open, self-aware, egoless, and flexible. By adopting those characteristics, the leader can improve communication, satisfaction, empowerment,



partnerships, respect, optimal care, health, and wellness outcomes, which meet basic human needs.

### ***Cultural Care Theory***

The cultural care theory is a nursing theory. Leininger (1988) developed the theory from clinical experience after recognizing that culture was a missing link between nursing knowledge and practice. Leininger (1996, 2002) expanded the theory in response to changing clinical and nursing practice experiences. The theorist's goal was for the institution of the theory in nursing education so that nurses would provide culturally appropriate care to patients. Although Foronda (2020) used aspects of the cultural care theory while developing the theory of cultural humility, it was unsuitable for the current study. Researchers use the cultural care theory to address the relationship between caregivers and patients, not managers and subordinates.

### ***Path-Goal Theory***

Similar to the theory of cultural humility, the path-goal theory is about leadership behavior. House (1971) explained that a leader's conduct could affect subordinates' satisfaction, motivation, and productivity. Northouse (2022), Lam et al. (2021), and Zia (2020) described path-goal leaders as leaders who define goals, clarify paths, remove obstacles, and support their subordinates. The path-goal theory was inappropriate for the current study because the theory relates to leadership initiation of structure and tasks rather than the leader taking on a role as a lifelong learner and being flexible.

### ***Leader-Member Exchange Theory***

In the leader-member exchange theory, there is an acknowledgment that leaders have different relationships with different subordinates. Dansereau et al. (1975) described the leader-member exchange theory as a method in which a leader communicates with their follower based on their relationship with the follower. J. Atkinson et al. (2021) explained that the communication style creates an in-group and an out-group, with the in-group feeling supported by their leader with open communication and the out-group feeling less supported and less engaged with the leader. Northouse (2022) further described that leaders give the in-group expanded responsibilities. In contrast, the out-group is usually less compatible with the leader while coming to work to complete their job without taking on extra responsibilities. Although there are similarities between the theory of cultural humility and the leader-member exchange theory, there are stark differences. Creating relationships for open communication is the underpinning of both theories, along with cultivating an individualized relationship with subordinates. However, leaders who use the leader-member exchange theory are open, self-aware, egoless, and flexible only with the in-group, making it inappropriate for use in the current study.

### ***Transformational Leadership Theory***

There are four elements of transformational leadership. Burns (1978) explained those elements as individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence. By employing these elements, leaders engage with others and create connections that raise the level of motivation and morality in both the

leader and follower (Northouse, 2022). Researchers often compare Burns's transformational leadership to House's (1976) theory of charismatic leadership because transformational leaders must possess the trait of charisma. Compelling and charming characteristics differ from a leader with qualities of cultural humility, including (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions, making the transformational leadership theory inappropriate for the current study.

Although the other theories I investigated are similar to the theory of cultural humility, none encompass all aspects of the idea. Furthermore, the instrument I used to collect information regarding nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions, does not align with the other leadership theories. Foronda et al. (2021) created the instrument to measure the constructs set forth by Foronda's (2020) theory of cultural humility. Using the theory of cultural humility, I created an alignment I could not attain through other theories.

### **Cultural Humility**

The independent variables for this study are practices of cultural humility, including (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. Tervalon and Murray-Garcia (1998) first implemented the practices concerning the provider and patient relationship. Yeager and Bauer-Wu (2013) and Hook et al. (2013) expanded on the idea by indicating that clinical researchers and therapeutic counselors should incorporate cultural humility practices into

their processes. Then Foronda (2020) extended the target population beyond providers and researchers to all in positions of power. As diversity in all sectors continues to grow, leaders can use cultural humility to bridge gaps, increase understanding, and reduce conflicts that interfere with accomplishing goals and relationships.

### ***Openness***

Openness is a broad topic with many meanings, but it has a specific purpose in cultural humility. Foronda et al. (2016), Foronda (2020), Hook et al. (2013), Tervalon et al. (2021), and Tervalon and Murray-Garcia (1998) explained that an individual must be open to interactions with culturally diverse individuals. If an individual does not have the attitude or characteristics of willingness to explore innovative ideas, cultural humility cannot occur. Tervalon et al. noted that cultural diversity is not only ethnic and racial diversity but also differences in language, thoughts, communications, actions, customs, beliefs, values, religion, and social groups. Furthermore, an individual must have openness to continuous learning and self-reflection.

### ***Self-Awareness***

Self-awareness is critical in all interactions, including cultural humility, as individuals possess implicit biases. Tervalon and Murray-Garcia (1998), Tervalon et al. (2021), Tervalon (2021), Foronda et al. (2016), and Foronda (2020) described self-awareness as an awareness of individual strengths and limitations while identifying values, attitudes, beliefs, and behaviors towards others. Through self-awareness, an individual can acknowledge, control, and react to their implicit biases that automatically

or unintentionally occur impacting judgments, decisions, and behaviors towards another person.

### ***Egolessness***

Egolessness is lacking an ego. Foronda et al. (2016), Tervalon and Murray-Garcia (1998), Huntington (2020), and Wong (2021) explained that individuals who are egoless are humble and view everyone's worth on an equal horizontal plane without the accentuation of neglecting themselves. Those that portray egolessness through cultural humility diminish power differentials and create equality in human rights.

### ***Self-Reflection and Critique***

Self-reflection and critique are one of the original four principles of cultural humility. Tervalon and Murray-Garcia (1998) and Tervalon (2021) explained that individuals can examine and critique their internal and implicit biases related to all aspects of cultural identity through self-reflection. Foronda et al. (2016) and Foronda (2020) described self-reflection and critique as a continuous journey of learning, reflection, and change. Without internal examination, critique, and acknowledgment, individuals cannot identify and modify their implicit biases, negatively impacting communication with people from a culture unlike their own.

### ***Supportive Interactions***

Individuals can portray supportive interactions in several ways. Tervalon and Murray-Garcia (1998) and Hook et al. (2013) described supportive interactions in the healthcare provider-patient relationship. Foronda et al. (2016), Foronda (2020), and Tervalon et al. (2021) expanded the description of supportive interactions to exchanges

between all people that result in positive human experiences. People who offer supportive interactions show empathy and humility while supporting communication.

Individuals who portray the practices and principles of cultural humility improve communication, satisfaction, empowerment, partnerships, respect, optimal care, health, and wellness outcomes. Skeet (2021), Markey et al. (2021), and Campos-Moreira et al. (2020) emphasized the need for leaders to incorporate cultural humility practices to address the inequities that exist in the workplace. Humble leaders, who radiate humility, can create inclusive workplace cultures that support and nurture staff. Cultural humility is more significant than a policy to address diversity, equity, and inclusion, as Tervalon and Murray-Garcia (1998), Tervalon et al. (2021), and Tervalon (2021) explained the expansive nature of culture beyond race and ethnicity. Leaders who use cultural humility can transform rigid workplace cultures into cultures that align with the needs and expectations of an ever-changing society.

### **Nurse Turnover**

Nurse turnover refers to the percentage of nurses who leave an organization over a set period, often a year. Jones and Gates (2007), Kovner (2022), Sawada et al. (2022), and Smokrović et al. (2022) described nurse turnover as a recurring problem for healthcare organizations. The issue of nursing turnover dramatically impacts healthcare organizations because they work to recruit and hire for vacant nurse positions. The United States Bureau of Labor and Statistics (2022b) explained that registered nurses are one of the top-growing occupations in the United States, with projected growth of 9% through 2030. Unfortunately, as the need for registered nurses grows, NSI Nursing

Solutions Inc. (2022) gathered statistical information from 232 healthcare systems in the United States and reported the turnover rate for registered nurses increased by 8.4% in 2021, now averaging 27.1%. It is essential to identify and retain nurses as the growth of the career field is outpacing the actual turnover.

Nursing turnover and staff shortages are not unique to the United States but are global problems healthcare organizations face that have a significant fiscal impact. Jönsson et al. (2021), Prakosa et al. (2020), and Schroyer et al. (2020) explained that recruiting and training nurses costs several thousands of dollars for all healthcare entities. The attrition is financially costly to healthcare organizations and negatively impacts the quality of care. Prakosa et al. also described how nursing turnover decreases healthcare entities' efficiency, effectiveness, and productivity. The inability to maintain adequate staff is a constant management problem. If organizations could better retain their nurses, they could decrease costs and increase care quality, solving the problem.

### ***Nurse Turnover Intention***

Nurse turnover intention is when nurses think about leaving their position. Edwards-Dandridge et al. (2020), Çamveren et al. (2022), and Blytt et al. (2022) described nurse turnover intention as the intention of a nurse to leave a specific job or company voluntarily. However, Bae (2022) indicated that nurse turnover intention positively correlated with actual nurse turnover. Researchers continue to study the cause of nurse turnover intention. Recent areas of study include the relationship between job satisfaction, work engagement, burnout, working conditions, leadership support, and nurse turnover intention. Researchers continue to seek solutions to increase healthcare

entity sustainability and decrease disruptions to healthcare access in communities by reducing turnover intention.

### ***Nurse Turnover Intention and Job Satisfaction***

Job satisfaction is the level of contentment an individual has with their job. Edwards-Dandridge et al. (2020), Hu et al. (2022), Zhao et al. (2021), Choi et al. (2022), and Lee (2022) found that job satisfaction was a significant predictor of nurse turnover intention. Nurses more satisfied with their job reported lower levels of turnover intention than those dissatisfied. Edwards-Dandridge et al., Hu et al., Zhao et al., Choi et al., and Lee investigated the relationship between job satisfaction and turnover intention in various nursing settings and consistently found job satisfaction as a predictor of nurse turnover intention. The researchers also emphasized that job satisfaction is a complex variable that needs further investigation before making recommendations on how to increase it.

The complexity of job satisfaction is related to the nurses' definition of satisfaction, which varies from person to person. Choi et al. (2022) found a relationship between nurse managers' competency and nurse job satisfaction. At the same time, Lee (2022) identified individual and organizational factors related to job satisfaction and turnover intention. Yet Hu et al. (2022) investigated hope and career identity as mediating roles of job satisfaction related to turnover intention. The vast complexities of individual satisfaction create barriers for those attempting to increase nurse satisfaction, because a one-size-fits-all approach would not account for all nurses. However, cultural



humility practices could improve job satisfaction because the interactions and focus is individualized.

### ***Nurse Turnover Intention and Work Engagement***

Work engagement is another multifaceted factor researchers have studied regarding nurse turnover intention. Lesener et al. (2020) described drivers of work engagement, including meaningful work, career growth, empowerment, belonging, recognition, leadership, and fulfilling work relationships. Pennbrant and Dåderman (2021), Edwards-Dandridge et al. (2020), Tang et al. (2022), and Slåtten et al. (2022) studied the relationship between work engagement and nurse turnover intention. Unlike job satisfaction, the researchers discovered mixed results regarding work engagement as a predictor of nurse turnover intention. Edwards-Dandridge et al. found that work engagement was not a statistically significant predictor of nurse turnover intention and nurses who were less than fully engaged did not intend to leave their job. Edwards-Dandridge et al.'s findings aligned with Alfes et al. (2016) and Blomme et al. (2015) but contradicted Pennbrant and Dåderman, Tang et al., and Slåtten et al.'s findings. The contradiction could be related to the complexity of job satisfaction. Slåtten et al. noted a high correlation between nurses' work engagement and job satisfaction. However, the researchers also found that job satisfaction fully mediated work engagement and turnover intention. Pennbrant and Dåderman, Tang et al., and Slåtten et al. argued that work engagement is one of the complex parts of job satisfaction. Due to the complexity of job satisfaction and the interconnectedness with work engagement, there is a lack of clarity in

the literature if leaders should focus on work engagement to address nurse turnover intention.

Similar to work engagement, cultural humility is multifaceted. Foronda et al. (2016) explained cultural humility attributes as (a) openness; (b) self-awareness; (c) egolessness; (d) self-reflection and critique; and (e) supportive interactions. Compared to Lesener et al.'s (2020) drivers of work engagement, a researcher could suggest that leaders can drive aspects of work engagement such as empowerment, belonging, recognition, leadership, and fulfilling work relationships through expressing cultural humility. With increased work engagement, nurse turnover intention could decrease.

### ***Nurse Turnover Intention and Burnout***

Nurse burnout is a complex variable similar to job satisfaction and work engagement that researchers have studied concerning nurse turnover intention. The World Health Organization (2022) described burnout as a syndrome resulting from chronic workplace stress, characterized by energy exhaustion, job-related cynicism, and reduced personal efficacy, a phenomenon in an occupational context only. NSI Nursing Solutions Inc. (2022) found that rising patient ratios, elevated occupancy rates, high acuity, and adverse patient outcomes contributed to nursing burnout in 2021. With nurses as one of the largest healthcare fields, nursing burnout is of great concern.

On top of already identified contributors to nursing burnout, there were also direct stressors leading to burnout related to working with COVID-19-positive patients. Rhéaume and Breau (2022) and Tomaszewska et al. (2022) emphasized that the COVID-19 pandemic added stressors over the past three years that led to increased nurse burnout,

including a lack of administrative support, poor work environment, and safety concerns. At the same time, Rhéaume and Breau reported 49% of the study sample indicated intent to leave related to burnout. Özkan (2022), Shapiro et al. (2022), and Shen Hsiao et al. (2021) identified that nurse burnout was related to increased turnover intention. Shapiro et al. also noted increased burnout vulnerability and turnover intention of younger nurses. The younger nurses in Shapiro et al.'s study also reported violence from patients, including being punched, bitten, spit on, kicked, or otherwise physically struck, working long shifts, working more nights, and increased dehydration and poorer sleep. The physical and psychological experiences led to increased burnout.

To prevent nurse burnout and, consequently, nurse turnover intention, leaders must identify and mitigate the causes of burnout. Shapiro et al. (2022), Zareei et al. (2022), Dyrbye et al. (2020), Shah et al. (2021), and the American Association of Colleges of Nursing (2022) found a myriad of topics associated with nurse burnout, including long shifts, workplace bullying, poor staffing ratios, stressful work environments, physically and emotionally draining tasks, lack of communication, and lack of organizational leadership. Shah et al. and Zareei et al. also found relationships between burnout, job satisfaction, and work engagement. The interconnectedness of variables made it difficult for causal mitigation. However, nursing and healthcare leaders could employ cultural humility to increase communication and better support nurses experiencing burnout.

### ***Nurse Turnover Intention and Working Conditions***

Working conditions vary between healthcare work settings. Some nurses work in outpatient facilities, and others in hospitals, public health, clinics, nursing homes, and home care settings. Despite the location, Al Sabei et al. (2020), White et al. (2020), and Poku et al. (2022) reported that healthcare facilities with a positive work environment and adequate nursing workforce had improved nursing staff outcomes, including decreased turnover intention. Shah et al. (2021) found that 34.4% of nurses cited a stressful work environment as the reason for leaving and 41.6% as the reason for considering leaving. Creating a healthy workplace, despite the setting, is a critical task healthcare leaders must work towards to reduce the burdens of nurse turnover and turnover intention.

Part of working conditions includes interpersonal interactions with others. Favaro et al. (2021), Al Muharraq et al. (2022), and Crawford et al. (2019) explained that workplace bullying and hazing are common in the nursing profession. Crawford et al., Caristo and Clements (2019), and Aebersold and Schoville (2020) continued with an idiom used by and understood by nurses internationally, “nurses eat their young.” The quote is about the bullying that occurs between nurses. Al Muharraq et al., Caristo and Clements, Crawford et al., Favaro et al., and Krut et al. (2021) explained that nurses who experienced bullying reported poor mental health, decreased collaboration with team members, ineffective communication, reduced work productivity, and insufficient job commitment. The physical and mental impacts of bullying contribute to a poor work environment, resulting in increased turnover and turnover intention.

Nurses show care, compassion, and empathy to patients, quite the opposite of bullying coworkers. However, Burton (2020), Esposito et al. (2021), Ruiz-Fernández et al. (2020), and Xie et al. (2021) explained that nurses often experience compassion fatigue. Xie et al. and Cavanagh et al. (2020) described compassion fatigue as a unique type of burnout that affects those in caregiver roles, and exhibited through physical, emotional, and spiritual depletion. When experiencing compassion fatigue, it is more difficult for nurses to show compassion toward each other (Jin et al., 2021; Pérez-García et al., 2021). Nonetheless, it contributes to harmful and poor working conditions.

By expressing cultural humility, nurses could contribute to favorable working conditions. Foronda (2020) explained that the theory of cultural humility is an innovative approach to addressing diversity and conflict. At the same time, Foronda (2020) suggested that when individuals express cultural humility, they help meet the most basic human needs. When leaders institute cultural humility, they can encourage others to view poor working conditions through an alternative lens, exuding flexibility to improve the conditions. Once work conditions are improved, nurse turnover intention could decrease.

### ***Nurse Turnover Intention and Leadership Support***

Leadership style and support also impact nurse turnover intention. Magbity et al. (2020) found that nurses perceived that nurse managers used transformational, transactional, laissez-faire, participative, and autocratic leadership styles. Magbity et al. further discovered that participative and transformational leadership styles correlated with decreased turnover intention; transactional, laissez-faire, and autocratic connected with increased turnover intention. Similarly, Suliman et al. (2020) found three leadership

styles of nurse managers: transformational, transactional, and passive-avoidant. Suluman et al., like Magbity et al., identified that transformational leadership decreased nurse turnover intention. Conversely, Suliman et al. reported that passive-avoidant and transactional leadership had no significant effect on turnover intention. Although researchers have correlated leadership style with turnover intention, more research is needed to identify to what extent.

Researchers identified that transformational leadership had a positive effect on turnover intention. There are four components to transformational leadership. Burns (1978) and Northouse (2022) explained the four facets of transformational leadership: individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence. Transformational leaders in nursing motivate team members by appealing to nurses' desire to demonstrate higher moral values and integrity in practice. However, while encouraging through passion, leaders fail to recognize and respond to mutual empowerment, partnerships, respect, optimal care, and lifelong learning. The failed recognition displayed by leaders differs vastly from the qualities of cultural humility.

### ***Nurse Turnover Intention and Cultural Humility***

Cultural humility as a predictor of nurse turnover intention has yet to be studied. As highlighted throughout the analysis of predictors of nurse turnover intention, the predictors and intention are complex. The multifaceted nature of the nursing field and the complexity of communication has increased the difficulty of leaders effectively reducing turnover intention and the associated consequences. Tervalon and Murray-Garcia (1998),

Tervalon et al. (2021), Tervalon (2021), Hook et al. (2013), and Foronda et al. (2016) explained the need for cultural humility in the patient and provider relationship.

However, it was not until recently that Murray et al. (2022), Anderson et al. (2022), Foronda (2020), and Zhang et al. (2021) expressed that the principles and practice of cultural humility are also beneficial in the supervisory relationships and whenever there is a power imbalance or differing perspectives. Identifying if and to what extent a relationship exists between cultural humility and nurse turnover intention would fill the literature gap regarding the topic.

### **Measurement of Variables**

Evaluation is a critical component of research. I used two instruments to measure the variables in this study. Unlike intent to leave tools, there are few options to measure cultural humility that align with the theoretical framework. Foronda et al. (2021) created the cultural humility scale based on the constructs of the theory of cultural humility.

There are several instruments I could have used to measure the intention to leave.

However, the Michigan Organizational Assessment Questionnaire is frequently used to measure intention to leave the healthcare industry.

### **Cultural Humility Scale**

Measuring the independent variables of (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions, also known as cultural humility constructs, is complex. Foronda et al. (2022) recommended using a reliable and valid instrument with a quantitative method. Foronda's cultural humility scale is the only psychometrically tested instrument to measure cultural humility, with a

validity score of 0.83 and a reliability coefficient, Cronbach's alpha, of the entire 19-item scale of 0.85 (Foronda et al., 2021). Although new, Luctkar-Flude et al. (2022) used the cultural humility scale to determine pre and post intervention ratings and had reliable and valid results. Furthermore, researchers psychometrically tested the scale in the healthcare setting. Researchers found high face and internal validity similar to the cultural humility instrument, with a Cronbach's alpha of 0.83 for the Michigan Organizational Assessment Questionnaire intent to leave instrument (Cammann et al., 1979, 1981). Researchers often used Cammann et al.'s (1981) intent to leave measure in nurse intent to leave studies (Armmer & Ball, 2015; Blytt et al., 2022; Simons, 2008). The high validity, reliability, and history of use within the target population affirmed the instruments' appropriateness.

### **Michigan Organizational Assessment Questionnaire**

The dependent variable for this study is nurse turnover intention. I measured the variable using Cammann et al.'s (1981) Michigan Organizational Assessment Questionnaire (MOAQ) intent to leave measure. The University of Michigan's Research Center developed the MOAQ to collect and measure data about employee attitudes and perceptions. Cammann et al. demonstrated how the three-question intent to leave survey predicted an employee's intent to leave. Simons (2008) confirmed the high face and internal validity with a Cronbach's alpha of 0.83, equivalent to Cammann et al.'s Cronbach's alpha calculation of 0.83. Researchers measured the MOAQ intent to leave scale on a Likert scale. There are three questions with seven intention levels. The questions are: I will actively look for a new job in the next year, I often think about



quitting, and I will probably look for a new job by the next year. The intention levels range from not at all likely to extremely likely and strongly disagree to strongly agree.

### **Retention Strategies**

Retention strategies differ between facilities and the tenure of staff. Jönsson et al. (2021) and Schroyer et al. (2020) stressed the importance of precepting or mentorships for retention. Mulkey and Casey (2021) and Pennington and Driscoll (2019) also found that nurses seek mentorships for professional development, leading to retention. Such programs have successfully decreased workplace stress while providing a support system for the nurse. Jönsson et al. and Schroyer et al. agreed that such programs are most beneficial for new nurses, nurses new to a unit, or specialty unit nurses. The mentorships and precepting lose effectiveness as the nurses' tenure increases, and without other retention strategies, nurses leave.

Another retention model is employing a nurse retentionist. Sattler et al. (2021) discussed the concept of a nurse retentionist: an employee hired to increase nurse retention. A health system in the southeast United States created the nurse retentionist model by hiring an individual to introduce five retention strategies. Those strategies included: planned individual meetings, intentional relationship building, clinical ladder revisions, a systems-wide retention committee, and focused recognition efforts (Sattler et al., 2021). After two years, the program decreased nurse turnover by 1.2%, an estimated \$22,860,000 in reduced turnover costs. Although the position resulted in increased retention, Sattler et al. explained the need for strategic changes because the environment

and organizational culture shifted. The research is limited to one study because other systems have not adopted the retentionist model.

Organizational leadership and work-life balance are factors beyond precepting and mentoring that influence a nurse's intention to stay in a position. Argent et al. (2022), Loft and Jensen (2020), and Anselmo-Witzel et al. (2020) explained that the leadership characteristics of the nurse manager influenced job satisfaction and retention. Loft and Jensen identified six factors linked to nurses' intention to stay: management, professional challenges, good colleagues, work-life balance, experience, and specialty. Throughout the research I identified a thread of ineffective leadership leading to turnover and burnout that became a perpetual cycle. Poor leadership results in staff turnover; turnover creates increased workloads for remaining nurses who burn out and then leave.

New graduate nurses' needs differ from those with tenure in the profession. Anselmo-Witzel et al. (2020) described how Generation Y is the most prevalent and growing segment of the healthcare workforce, with over 75% of the global workforce falling into Generation Y (born between 1981 and 2000) by 2025. Generation Y responds well to a servant leadership style. Anselmo-Witzel et al. described several servant leader characteristics that resonated with Generation Y nurses, including accountability, standing back, stewardship, empowerment, authenticity, and humility. Argent et al. (2022) explained similar leadership characteristics for the population surveyed regarding the intention to stay.

It is important to note that the intention to stay for nurses was rarely related to wages in the studies I analyzed. Terry et al. (2021) developed a nursing hierarchy of

needs based on the nursing community Apgar questionnaire applied to nursing in rural locations, which the researchers examined through the lens of Maslow's Hierarchy of needs. Clinical needs were at the bottom of the hierarchy, while finances were the second tier from the top. Terry et al. described clinical needs as an environment that fosters high-quality patient care with a powerful sense of connectedness and morale among staff. Argent et al. (2022) described similar needs that entities must meet to retain staff, including a positive work culture.

The second level of the hierarchy was management or leadership. Anselmo-Witzel et al. (2020), Argent et al. (2022), Loft and Jensen (2020), and Terry et al. (2021) stressed the importance of healthcare leadership and nurse management for the successful retention of nurses. Nurses want to feel empowered, heard, and respected (Terry et al., 2021). Nurses also want to have an active role in creating policies and procedures that impact their positions (Argent et al., 2022). Through open and inclusive communication, nurses feel valued with increased satisfaction positively impacting intentions to stay.

Another strategy for nurse retention begins in the prelicensure stage, when nurses are still in school. Nursing educators can use educational programs to help students develop internal protective factors to encourage coping and resilience (Spurr et al., 2021; Walsh et al., 2020). Hughes et al. 2021 found four factors associated with resilience: self-efficacy, optimism, emotional intelligence, and self-stewardship/self-care. At the same time, strategies to enhance the factors include reflection, positive reframing, problem-based learning, and mindfulness. Resilience, the ability to overcome adversity while growing more substantial from the experiences, has positively impacted nurses in practice

(Walsh et al., 2020). Despite the positive impact and effects of building resilience, Cochran et al. (2020) found limited resources related to resilience training in the curricula of accredited nursing schools within the United States. 9% of 155 nursing schools examined incorporated resilience training into the curricula (Cochran et al., 2020). Training and educating the upcoming workforce in resilience is a retention strategy that could positively impact nurse turnover.

### **Leadership Role in Retention**

Nurse leaders serve several roles within the healthcare industry, including overseeing nursing units, establishing procedures and protocols, holding staff accountable to the policies and protocols, determining and setting staffing levels, and supervising staff. Nurse leaders are vital in shaping the outcomes of both patients and personnel (Cummings et al., 2021). Marufu et al. (2021) completed a literature review to determine factors influencing nurse turnover and found nine domains influencing turnover. The most significant domain was nursing leadership and management. Nurses have voiced that they do not feel respected by leadership and management, affecting their intention to leave (Cummings et al., 2021). Nurses reported a lack of respect regarding their knowledge, education, values, and expertise (Almost & Mildon, 2022). Nurses want leadership to seek their input and listen to their perspectives on decisions that affect their practice. They also wish that administration would provide safe working environments with adequate supplies, resources, and appropriate workloads.

Nurse leaders have a significant role in retaining nurses and preventing turnover. McClain et al. (2022) and Cziraki et al. (2020) explained that nurse leaders must create a

healthy work environment. Al Sabei et al. (2020), White et al. (2020), Poku et al. (2022), and McClain et al. described a healthy work environment as one that is collaborative, fair, flexible, and challenging that also provides the opportunity for learning and growth. Leaders can facilitate and support a healthy work environment by creating policies and procedures to enforce and hold others accountable to the expectations. Nurses could then feel safe, supported, and inspired in their work environment.

Nurse leaders are also responsible for advocating for their employees' needs. As the United States exits the COVID-19 pandemic, healthcare facilities are still experiencing the fiscal and personnel impacts of the pandemic. Wibowo and Paramita (2022), Grint (2020), and Woods et al. (2020) explained that the leader's role is to raise morale, maintain resilience, and reduce the thoughts of turnover during crises and beyond. When leaders strengthen nurse resilience, it increases well-being, protects against burnout, improves retention, and increases patient safety (Koprowski et al., 2021; Pappas, 2021). Leaders could not preserve the morale and resilience of their staff during the pandemic, leading to increased turnover and turnover intention. It is critical for leaders to advocate for nurses' needs at this time and to rebuild the morale and resilience lost over the past three years.

Above nurse leaders, organizational leaders also play an integral role in nurse retention. Corporate leaders have many responsibilities, including setting the organization's mission, vision, and values and leading, guiding, and directing employees. In coordination with nurse leaders, organizational leaders are entrusted and empowered by organization stakeholders and board members to implement, design, and develop the

strategy to obtain the mission, vision, and values (Northouse, 2022; Rimita et al., 2020). Leaders also play a critical role in recruitment, hiring, retention, and assignment of roles within the organization, helping the organization reach the established goals. Al-Dalahmeh and Héder-Rima (2021) found that leaders focused on talent management practices cultivate a culture with increased retention and lower turnover intention. With a focus on talent management practices, organizational leaders could help reduce turnover intention.

### **Consequences of Turnover**

There are economic and non-economic consequences associated with nursing turnover. High nurse turnover rates significantly impact healthcare outcomes and the functioning of healthcare institutions. Shah et al. (2021) explained that the forces behind workplace turnover, such as burnout, are fixable. However, healthcare employers do not adequately assess the details causing the turnover. The implications of nurse turnover rates place the healthcare system's fiscal interests at risk (Winter et al., 2020). Nurse turnover financially strains hospitals and other organizations, including costs per employee for separation, recruitment, and training, adding expenses to the hospital budget. Economic consequences include the cost of turnover, loss of nursing human capital, and the potential effects on quality care (Jones & Gates, 2007; Sawada et al., 2022; Winter et al., 2020). As nursing staff shortages continue to grow, nursing staff attrition compounds the problem by creating undue management and financial burdens for healthcare organizations (Muir et al., 2021). The United States Bureau of Labor and Statistics (2022a) reported a 2021 median nurse wage of \$77,600, while Farrington et al.

(2020) explained that each vacancy costs healthcare organizations between .75 and 2 times the median nurse salary, resulting in \$58,200 and \$155,200 per vacancy with overall annual entity costs in the millions. The per-nurse turnover results in annual financial impacts of \$856 million in cost to healthcare organizations and between \$1.4 and \$2.1 billion for society (Li & Jones, 2013). The significant financial impacts result in undue burden for healthcare organizations.

The non economic costs of nurse turnover vary greatly. Jones and Gates (2007), Kelly et al. (2021), and Muir et al. (2021) described non economic side effects, including patient safety, adequate staff to patient ratios, nurse burnout, recruitment, and retention. The non economic costs include poor patient satisfaction, adverse patient events, and decreased hospital safety ratings. Patient care outcomes, nursing care processes, and the healing environment of healthcare facilities are at risk from significant turnover. In a secondary data analysis, Needleman et al. (2020) studied the effect of nurse turnover on mortality at an extensive urban US academic health system with three hospitals. The researchers found that mortality risk increased with exposure to more low-staffed nurse shifts (HR per low-staffed shift, 1.023, 95% CI 1.011 to 1.035). Additionally, facilities with high nurse turnover rates experienced more patient falls, pressure injuries, and medication errors, which pose serious risks to patient health (Jones & Gates, 2007; Sawada et al., 2022; Winter et al., 2020). With the significant impacts on patient health and safety, employers need to address the reasons that cause high turnover rates.

As elevated levels of turnover persist, nursing is one of the fastest-growing employment fields in the United States. Chi (2020) explained that the Bureau of Labor

and Statistics projected that the occupation would add 511,500 jobs between 2018 and 2028. However, Kovner (2022) described that the supply of qualified nurses does not meet the demand needed in healthcare, coupled with high turnover, costs increase.

Nursing staff turnover in the United States costs the healthcare system and the economy billions of dollars annually. Li and Jones (2013) explained that the fiscal impact of nursing turnover on healthcare organizations is \$856 million annually, while the cost to society is up to \$2.1 billion. The economic effects of nursing staff turnover also include the loss of human capital and the fiscal impact of poor-quality care (Jones & Gates, 2007). To reduce nursing staff turnover, healthcare organizations could change and increase retention strategies.

### **Recruitment Difficulties**

Coupled with increasing nurse turnover and nurse turnover intention rates are recruitment difficulties. NSI Nursing Solutions Inc. (2022) sent the NSI National Healthcare Retention and RN Staffing Survey to over 3,000 United States health systems asking facilities to report data from January through December 2021 for each hospital within the system separately. After the survey collection, NSI Nursing Solutions Inc. reported that 272 hospitals from 32 states responded. The survey responses included 589,901 healthcare workers and 166,087 registered nurses.

The researchers used a registered nurse recruitment index to determine the average number of days it took the hospitals to recruit experienced registered nurses. NSI Nursing Solutions Inc. (2022) identified that it took hospitals 62 to 112 days to recruit experienced registered nurses, depending on a specialty, with an 87 day average. The



elevated recruitment day index is associated with market competition and registered nurse shortages. NSI Nursing Solutions Inc. noted that contracting staff for talent acquisition decreased the fill time to roughly 30 days. However, contract nursing came with increased expenses.

Unfortunately, many nurses are not working, adding to the shortage and increased recruitment times. Castner et al. (2021) calculated weighted population estimates from the 2018 National Sample Survey of registered nurses to estimate the number of registered nurses not actively working in nursing and retired, based on demographics, place of residence, and per 1,000 state population. From the 2018 survey, Castner et al. identified that 17.3% (weighted  $n = 684,675$ ) of nurses were not working in nursing. Although there was a reserve capacity for nurses not working, further research is needed to determine why. Assessing nonworking registered nurses' willingness to enter or reenter the profession would also reveal if the reserve capacity were willing to fill the need. Still, the healthcare systems would need to invest in recruiting and retaining the workforce if the nurses reentered.

### **The Great Resignation**

The great resignation is an economic trend in which people voluntarily resign from positions in the masses. Parker and Menasce-Horowitz (2022) found that most who left stated stagnant wages and increased cost of living, limited career advancement, toxic work environments, lack of benefits and flexibility, and job dissatisfaction resulted in the individuals leaving. Poindexter (2022) explained that low staffing levels from resignations have added to the workloads of remaining nurses who are assuming the

responsibilities usually accomplished by several people. The great resignation is a cycle that exacerbates the problems, and the healthcare industry and nursing are not isolated from the trend.

The American Nurses Foundation (2022) reported that 52% of registered nurses surveyed indicated that they were considering leaving their position due to insufficient staffing and the negative impact of the work on all aspects of their health and well-being. Similarly, Hospital IQ (2021) completed a recent survey of 201 hospital-based registered nurses and found that 90% of registered nurses were considering leaving the nursing profession in the next year. Additionally, Hospital IQ reported that 71% of registered nurses who participated in the survey with over 15 years of experience were thinking about leaving as soon as possible or within the next few months. The impact is unfathomable.

Healthcare leaders must make changes to slow the attrition. Tussing et al. (2022) asserted that for health systems to prevent the effect of the great resignation, leaders would need to focus on hospital hiring policies, nurse to patient ratios, salaries, working conditions, and educational opportunities. Recruit and retention strategies are essential to prevent continued exodus.

### **Contract Staffing**

As registered nurse shortages wane, healthcare facilities have contracted staff to fill positions. However, contract staff are cost prohibitive. Contract nurses are sometimes known as travel nurses. Independent staffing agencies typically employ contract/travel nurses to fill nursing positions within healthcare systems for a limited time (Fishman,

2022; Raso & Fitzpatrick, 2022). Often, travel nurse assignments last 12-13 weeks at a facility but could last longer depending on facility needs and contract/travel nurse desires.

Although the concept of contract/travel nurses is not new, the utilization has increased dramatically. Raso and Fitzpatrick (2022) explained that the disruption of the nursing workforce due to the COVID-19 pandemic had increased the healthcare system's reliance on contract/travel nurses as additional staff. With the increase in demand and low supply, wages also increased. NSI Nursing Solutions Inc. (2022) reported that in 2021 contract/travel nurse rates jumped over 200%, with salaries averaging \$154 per hour and ranging to \$225 per hour. The average non-contract nurse wage is \$39.78 per hour (United States Bureau of Labor and Statistics, 2022b). Health systems cannot sustain themselves by paying contract/travel nurses 5 times as much as employed nurses. NSI Nursing Solutions Inc. found that for every 20 contract/travel nurses eliminated, a hospital can save an average of \$4,203,000 annually. However, due to staffing shortages and a low supply of registered nurses, only 22.7% of health systems participating in the 2021 NSI National Healthcare Retention and RN Staffing Survey reported that they planned to reduce reliance on contract/travel nurses (NSI Nursing Solutions Inc., 2022). If health systems want to improve operating margins and decrease costs, they need to reduce the reliance on contract/travel nurses. They could do so by decreasing nurse turnover intention and nurse turnover.

### **Transition**

In Section 1, I provided the purpose of this quantitative correlational study, which was to describe the relationship between nurses' perceptions of the nurse manager's (a)

openness, (b) self-awareness, (c) ego-lessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention. I next described the background of the problem and the importance of nurse retention to the healthcare industry and society. I also established the hypotheses for the study, described the theoretical framework, and provided a review of academic and professional literature. Section 2 includes a purpose statement and information about my responsibilities as the researcher, the research method, research design, participant selection, population and sampling, ethical considerations, the data collection instruments and techniques, and the data analysis process. I concluded Section 2 by examining the study's validity.

In Section 3, I detail the findings, propose professional practice impacts, and discuss implications for social change. In addition, I examine the dialogue relating the findings to nurse turnover intention and healthcare businesses, and discuss my experience during the doctoral process. Lastly, I present recommendations for action and future research regarding the relationship between nurses' perceptions of the nurse manager's (a) openness, (b) self-awareness, (c) ego-lessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention.

## Section 2: The Project

The purpose of this quantitative correlational study was to examine the relationship between nurses' perceptions of the nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention. The independent variables were nurses' perceptions of the nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. The dependent variable was turnover intention. The targeted population was nurses currently working in the Midwest United States. The study's contribution to social change included increased health system sustainability, access to timely and high-quality healthcare, and promotion of a healthy community. The benefits of a healthy community include lower chronic disease burden, improved health outcomes, and decreased economic burden associated with disease management and health inequity (Bauer, 2019).

### **Purpose Statement**

The purpose of this quantitative correlational study was to examine the relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention. The independent variables were nurses' perceptions of the nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. The dependent variable was nursing staff turnover intention. The target population comprised nurses of all healthcare entities in the Midwest United States. The implications for positive social change included the potential

to increase accessibility for local community members to timely and high-quality healthcare in the Midwest United States while increasing health system sustainability.

### **Role of the Researcher**

The role of the quantitative researcher is to act objectively while viewing only the visible side of phenomena. The researcher generates knowledge and understanding about the social world through scientific inquiry of data that they observed or measured to answer questions about a sample population (Burrell & Gross, 2017; Duckett, 2021). In their role, researchers use deductive reasoning to evaluate hypotheses created from theoretical frameworks (Borgstede & Scholz, 2021; Williams et al., 2002). Through deductive reasoning, they measure phenomena using numeric data. Borgstede and Scholz (2021) explained that quantitative researchers find mathematical relations between variables, which they can analyze to draw meaningful conclusions or correlations.

I had little to no interaction with the study participants as I dispersed surveys and collect data through SurveyMonkey. At the time of the research, I had extensive experience in healthcare leadership and cultural humility. However, I did not have direct or indirect relationships with the study participants, so my experience did not impact the participants.

As the researcher, I adhered to the Belmont Report principles and guidelines. The development of the Belmont Report in 1979 resulted from discovering unethical research methods within the science community. The United States Department of Health and Human Services, Office for Human Research Protections (1979) poised three ethical principles related to human subject research in the Belmont Report: respect for persons,

beneficence, and justice. Dutka and Astroth (2022) and Saunders et al. (2016) described respect for persons as ensuring the autonomy of individuals, beneficence as minimizing harm and maximizing benefits, and justice as fair and equal opportunity for research participation. The principles provide the framework for ethical research methods within all research communities. I showed respect for people by ensuring the anonymity of study participants by not collecting their names or other identifiable demographic information. By upholding ethical practices and principles, I respected the beneficence of the participants by including informed consent in the survey and stressing that participation was voluntary. Lastly, I acted with justice by adhering to the Walden University Institutional Review Board (IRB) guidance.

### **Participants**

Participants of the study were registered nurses who work in the Midwest United States. The population or unit of analysis was nurses because I sought to examine the relationship between nurses' perceptions of the nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention. Although nurse managers were a component of the research question, they would have been unable to provide the perception of their subordinates regarding their behaviors. Another participant eligibility requirement was that the participant must have been currently working as a registered nurse. Kervin (1999) and Banerjee and Chaudhury (2010) encouraged researchers to refine the population to a target population to increase the manageability of the data. I created the eligibility requirements to ensure a broad target population because collecting data from all

registered nurses was impractical. It allowed me to focus the research inquiry on a manageable registered nurse population sample size.

For this study, the strategy for gaining access to participants was using social media, specifically LinkedIn and Facebook. A survey for the study was created in SurveyMonkey and distributed on LinkedIn and Facebook. The survey data related to the research question for my correlational research design. I created an informed consent form as part of the SurveyMonkey survey, which informed participants of their rights, described the purpose and nature of the correlational study, and outlined the measures I used to ensure participant privacy. When researchers use online platforms such as SurveyMonkey, the functionality allows for survey response collection and communication of those responses back to the researcher (Muley, 2021). Another benefit of using the SurveyMonkey platform was participant anonymity because I did not have access to identifying information such as name or email address. I gathered limited demographic information, including sex and age, to ensure further anonymity.

## **Research Method and Design**

### **Research Method**

Researchers often choose research topics they care about when conducting studies. After identifying their subject of study, researchers can use three research methods to explore their topics: quantitative, qualitative, and mixed. Researchers use quantitative methods to collect and analyze data while testing hypotheses (Borgstede & Scholz, 2021; King et al., 2021). Park and Min (2020) and Bougie and Sekaran (2020) explained that quantitative researchers look for patterns, averages, relationships, and



causality to make predictions and generalizations about larger populations. This positivist approach allows for predetermined, highly structured, standardized data collection (Saunders et al., 2016). The researcher can then use the results to examine and identify quantitative or numerical changes associated with the population of interest, generalize the data to similar situations, provide predictions, and explain casual relationships (Bleske-Rechek et al., 2015; Saunders et al., 2016). The quantitative method was appropriate for the current study because I aimed to examine the relationship between nurses' perceptions of their nurse managers' cultural humility practices and nurse turnover intention, which were independent and dependent variables.

Unlike quantitative research, qualitative research is less structured and not measurement driven. Boeren (2018) and Guha et al. (2021) explained that qualitative researchers seek to provide in-depth insights into phenomena. Saunders et al. (2016) further explained that qualitative researchers attempt to make sense of subjective and socially constructed meanings. Qualitative researchers observe, establish patterns, and interpret the qualitative data gathered (Harrison et al., 2020). Because I did not need direct interactions and observations with participants to collect the data, describe the phenomenon, or understand the relationship between variables, a qualitative research method was inappropriate for this study. Similarly, Tashakkori et al. (2020) explained that mixed-methods researchers complete a full qualitative and quantitative study, then interpret both data sets to identify and report the findings. The increased subjectivity, rigor, and multifaceted nature made the mixed-methods approach unsuitable for the research question in the current study. The quantitative approach was needed to answer

the research question by examining the relationship between variables. The quantitative approach also allowed me to generalize the results to a larger population.

### **Research Design**

There are four research designs that a quantitative researcher can use. Bougie and Sekaran (2020) described them as correlational, descriptive, experimental, or quasi-experimental. For this study, I chose a quantitative correlational design. Correlational researchers seek to identify the extent to which two variables are related (Saunders et al., 2016). The correlational design was appropriate for the current study because the objective was to examine the relationship between nurses' perceptions of the nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions (independent variables) and nurse turnover intention (dependent variable) using Foronda's Cultural Humility Scale and the Michigan Organizational Assessment Questionnaire.

Other quantitative research designs include experimental and quasi-experimental. Saunders et al. (2016) and Bleske-Rechek et al. (2015) explained that researchers could conduct an experiment or quasi-experiment to examine how an intervention statistically leads to an outcome. Experimental methods allows the researcher to control and monitor the variables affecting the dependent variables while identifying a cause-and-effect relationship (Bougie & Sekaran, 2020). However, I aimed to increase the knowledge base within an existing topic area, not to explore a cause-and-effect relationship of a phenomenon, which made the experimental design inappropriate. Furthermore, researchers use the descriptive quantitative design when they want to observe or describe

a phenomenon (Saunders et al., 2016). The descriptive design was inappropriate because the design did not align with the research question addressing the relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention.

Correlation through multiple linear regression analysis is a design researchers use to examine the relationships between independent variables and a dependent variable. The correlational design allowed me to examine a relationship between the variables. The correlational researcher can identify the strength of linkage or co-occurrence between two variables in a single value between -1 and +1 (Green & Salkind, 2017). Although the correlational design is limited to linear relationships between variables, I could visualize the relationship between two or more variables on a scatter plot to verify that the variables have a linear relationship.

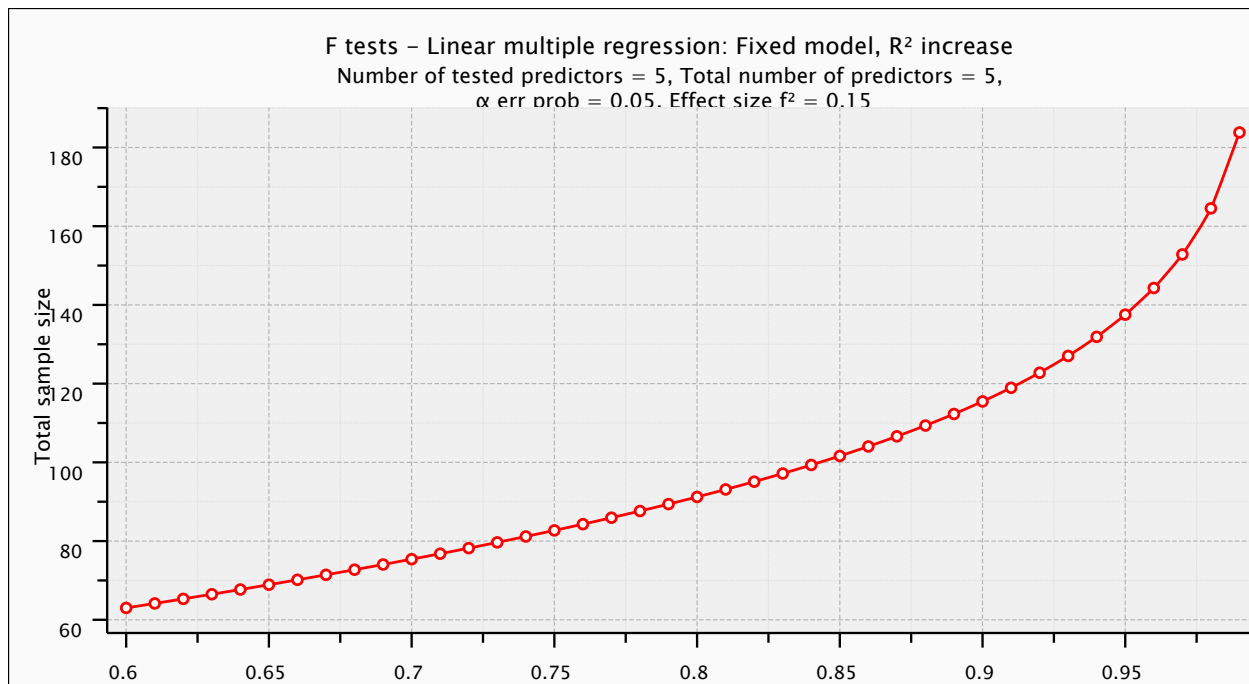
### **Population and Sampling**

Sampling errors occur during the sampling process. Green and Salkind (2017) recommended that researchers use inferential testing to identify the needed sample size for studies. I conducted a power analysis and determined the minimum sample size to mitigate sampling errors. After completing the power analysis using Faul et al.'s (2009) G\*Power Version 3.1.9.7, I determined the minimum sample size for this study to be 102 participants. A priory effect size of  $f = .15$  and  $\alpha = .05$  for a minimum of 102 participants is needed to achieve a power of .85. The availability of a larger sample size could increase the strength and power of the variable relationships. For example, examining

184 participants would have increased the power to 0.99; the sample size I used was between 102 and 184, as presented in Figure 4.

**Figure 4**

*G\* Power as a Function of Sample Size*



*Note.* Source: Author's calculations.

The selected population for my study consisted of registered nurses who work in the Midwest United States. Participants must have been currently working as a registered nurse. Twelve states make up the Midwest United States, including North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana, and Ohio. The broad population provided a sufficient number of participants to achieve the minimum sample size of 102.

Although there are two categories of sampling (random and nonprobabilistic), I used nonprobabilistic sampling. Bougie and Sekaran (2020) described random sampling as a technique in which each sample has an equal probability of being chosen to participate in the study. In contrast, nonprobabilistic sampling is a method in which researchers use a subjective approach to select units from a population (Saunders et al., 2016). Because my strategy for gaining access to participants was subjective through sharing on social media, nonprobabilistic sampling was appropriate for the study.

Another method of sampling I used was snowball sampling. Snowball sampling is a recruitment technique used by researchers to ask participants to identify and recruit other potential research subjects (P. Atkinson et al., 2019). Makhal et al. (2022) explained that researchers use snowball sampling when they ask participants to circulate the survey in online forums. P. Atkinson et al. (2019) described snowball sampling as a form of convenient and nonprobabilistic sampling that involves the researcher drawing from a nearby population. By asking the nurses who completed the survey to circulate it within their networks, I conducted snowballing sampling. There was minimal risk to participant privacy by asking them to distribute the survey because I did not identify them as participants. I did not ask them to share specific names of potential participants with me, and they did not receive compensation for circulation.

Registered nurses were the unit of analysis, so the population was appropriate for answering the research question because nurses could provide perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. I used social media, LinkedIn and Facebook, to

recruit registered nurse participants, as there was access to diverse nurse users on those platforms. Recruitment through social media also allowed me to access participants without partnering with healthcare entities or other agencies. By using social media, I employed the snowball sampling method through social media circulation.

### **Ethical Research**

As the researcher, I adhered to the *Belmont Report* principles and guidelines to ensure ethical research. The development of the *Belmont Report* in 1979 resulted from discovering unethical research methods within the science community. The United States Department of Health and Human Services, Office for Human Research Protections (1979) poised three ethical principles related to human subject research in the *Belmont Report*: respect for persons, beneficence, and justice. Dutka and Astroth (2022) and Saunders et al. (2016) described respect for persons as ensuring the autonomy of individuals, beneficence as minimizing harm and maximizing benefits, and justice as fair and equal opportunity for research participation. I ensured respect for participants by creating a voluntary, anonymous, consent-informed participation process, excluding name collection of participants. To further protect the confidentiality of participants, I will store the data securely for 5 years and then destroy it. I also did not provide participants monetary or nonmonetary support to further uphold ethical practices.

Part of the ethical research process was meeting the IRB's informed consent requirement. McMillan (2020) and Saunders et al. (2016) explained that an aspect of the regulations to protect human research subjects and minimize harm is the documentation of informed consent. There are two stages of informed consent: supplying the participants

with the informed consent document to review and the participant clicking the electronic informed consent acceptance box at the beginning of the survey (Lad & Dahl, 2014). I supplied the participants with the form through Survey Monkey; and they acknowledged understanding and consent by proceeding with the survey. Rothwell et al. (2021) and Jacquier et al. (2021) explained that informed consent is an agreement between the participant and the researchers. It requires a documented act, such as checking a box to indicate the acceptance of the agreement. Participants demonstrated their understanding of informed consent by completing the survey.

Another essential aspect of informed consent was notifying participants how to withdraw from my research study. By providing contact information for the Walden University research advocate and myself, participants could reach out for questions and withdrawal from the research. In the informed consent process, I informed all participants that they could discontinue without penalty at any time. If a participant chose to withdraw, they did so by not completing the survey. After completion of the survey, participants did not have the ability to withdraw because I could not identify the survey associated with the participants. Boyd et al. (2013) suggested that researchers should adequately account for and document those who discontinued. I summarized how I managed withdrawal information, including the removal and discarding of data, as part of my research in the data analysis section and listed it in the table of contents. The Walden University's IRB approval number for this study was 02-28-23-1160714. It expires on February 27, 2024.

## **Data Collection Instruments**

I used two instruments on ordinal Likert scales to collect the data for my study, Foronda et al.'s Cultural Humility Scale (2021) and the Michigan Organizational Assessment Questionnaire intent to leave measure (Cammann et al., 1979). I combined the validated instruments into an online survey with twenty-two survey questions and five demographic questions. As the researcher, I requested and received permission from the original survey author Dr. Cynthia Foronda to use and include the cultural humility instrument in the appendices. I requested and received permission to use the Michigan Organizational Assessment Questionnaire from Dr. Mark Fichman, original survey author. I used the pre-established surveys to measure cultural humility and turnover intention.

### **Foronda's Cultural Humility Scale**

I used Foronda et al.'s Cultural Humility Scale (2021) to measure (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions, the independent variables of my study. Foronda et al. found no quantitative tool to measure cultural humility, so the researchers developed, validated, and psychometrically assessed the instrument designed to measure cultural humility. Foronda's Cultural Humility Scale is a nineteen item scale, measured on a five-point Likert scale with 1 = never/rarely, 2 = once in a while, 3 = sometimes, 4 = usually, or 5 = all the time. Foronda et al. broke the nineteen items into three subscales: the context for difference in perspective, self-attributes, and outcomes of cultural humility. The scale can help researchers operationalize and evaluate the achievement of cultural humility.



Researchers psychometrically assessed the cultural humility instrument for validity and reliability. Foronda et al. (2021) explained that six doctoral-prepared faculty with multicultural experience evaluated the tool for face validity. The evaluators found that all items on the scale aligned with the constructs of cultural humility. The experts then ranked the items on a four-point Likert scale with 1 = not relevant to 4 = very relevant to measure content validity. They calculated the content validity per item and found that fourteen items had a validity ranking of 1.0, and five had a ranking of 0.83 (Foronda et al., 2021). The researchers determined that all items were valid because they scored higher than 0.80.

The researchers then completed further psychometric testing to determine the reliability. Foronda et al. (2021) conducted an exploratory factor analysis and sought a minimum sample size of three hundred participants to calculate Cronbach's alpha. The researchers found the reliability coefficient, Cronbach's alpha, of the entire 19-item scale was 0.85, above the 0.70 minimum acceptable value.

### **Michigan Organizational Assessment Questionnaire**

I then measured the dependent variable, nurse turnover intention, using Cammann et al.'s (1981) Michigan Organizational Assessment Questionnaire (MOAQ) intent to leave measure. The University of Michigan's Research Center developed the MOAQ to collect and measure data about employee attitudes and perceptions. Cammann et al. (1981) demonstrated how the three question intent to leave survey predicted an employee's intent to leave. Simons (2008) confirmed the high face and internal validity with a Cronbach's alpha of 0.83, equivalent to Cammann et al.'s Cronbach's alpha

calculation of 0.83. Researchers measured the MOAQ intent to leave scale on a Likert scale. There are three questions with seven intention levels. The questions are: I will actively look for a new job in the next year, I often think about quitting, and I will probably look for a new job by the next year. The intention levels range from not at all likely to extremely likely and strongly disagree to strongly agree.

These instruments were appropriate for my study for several reasons. Foronda's cultural humility scale is the only psychometrically tested instrument to measure cultural humility, with a validity score of 0.83 and a reliability coefficient, Cronbach's alpha, of the entire 19-item scale of 0.85 (Foronda et al., 2021). Although new, Luctkar-Flude et al. (2022) used the cultural humility scale to determine pre and postintervention ratings and had reliable and valid results. Furthermore, researchers psychometrically tested the instrument in the healthcare setting. Researchers found high face and internal validity similar to the cultural humility instrument, with a Cronbach's alpha of 0.83 for the intent to leave scale (Cammann et al., 1981). Researchers often use Cammann et al.'s (1981) intent to leave measure in nurse intent to leave studies (Armmer & Ball, 2015; Blytt et al., 2022; Simons, 2008). The high validity, reliability, and history of use within my target population affirmed the appropriateness of the instruments for my study.

### **Data Collection Technique**

I used an online survey to collect the data for my study. Researchers often use surveys to collect data on applied business problems such as employee satisfaction and intention to leave (Gupta, 2020). Lehdonvirta et al. (2021) explained that researchers' use of online surveys is increasing, surpassing established data collection techniques because

online surveys are easy to use and forgo the difficulties associated with traditional recruitment techniques. When researchers use purposefully designed online surveys, the researchers can generate data for statistical analysis and inferences (Pedersen et al., 2021; Wu et al., 2022). Through online survey collection, I also achieved my sampling techniques of non-probabilistic and snowball sampling.

I created the survey using SurveyMonkey and shared the survey link on social media platforms, including LinkedIn and Facebook, targeting nursing groups. I then invited potential participants to complete the survey through the social media post and asked potential participants to share the post and invitation within their networks. The survey included gatekeeper questions to ensure the participants were currently working as registered nurses in 1 or more of the 12 identified Midwest states, North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana, and Ohio. If potential participants did not meet the sample requirements, they could not proceed with the survey. By using gatekeeper questions, I ensured an appropriate sample population.

Once participants passed the gatekeeper questions, I provided the participants with an overview of the purpose of the research, informed them of how I would use the data, including the potential positive social changes that could occur from the study, and indicated the informed consent process. After the potential participants reviewed the informed consent, completing the SurveyMonkey questionnaire indicated acknowledgement and acceptance of the informed consent.

The SurveyMonkey online survey included three sections, one regarding cultural humility and the other about turnover intention, along with demographic questions. The cultural humility section measured the independent variables and consisted of nineteen questions from Foronda et al.'s (2021) Cultural Humility Scale. Researchers psychometrically evaluated all nineteen questions and found a content validity index of 0.8 or higher. As well the researchers assessed for reliability and found the reliability coefficient (Cronbach's alpha) of the entire 19-item scale was .85. Participants ranked their perceptions of their nurse managers' cultural humility practices, (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. The ranking scale was a five-point Likert scale with 1 = never/rarely, 2 = once in a while, 3 = sometimes, 4 = usually, or 5 = all the time. I used Cammann et al.'s (1983) Michigan Organizational Assessment to measure the participants' turnover intention, the dependent variable. The turnover intention scale was three question with seven intention levels: I will actively look for a new job in the next year, I often think about quitting, and I will probably look for a new job in the next year.

The SurveyMonkey online survey remained open and active until I achieved the minimum sample of 102 participants. I then analyzed the completed surveys to ensure the full completion of all sections by participants. Once I collected the indicated sample with fully completed surveys, I downloaded the data through the SurveyMonkey website. Next, I exported the data into an Excel file and imported it into IBM SPSS Statistics for statistical analysis.

There are many advantages to using an online survey for data collection. Pedersen et al. (2021), Lehdonvirta et al. (2021), and Wu et al. (2022) explained that online surveys are low-cost and easily accessible, allowing for instant feedback and automated data compiling. At the same time, Lehdonvirta et al. cautioned researchers that online survey samples are never fully representative of the target population due to non-response bias. Unlike phone and mail surveys, researchers using social media for online survey distribution cannot repeatedly contact the sample until they respond, which maximizes the response rate and minimizes non-response bias. I used snowball sampling to optimize response rates and reduce non-response bias. Snowballing is similar to repeated distribution based on social media shares and algorithms. The more people that share the post, the more people who see it, potentially repeatedly.

### **Data Analysis**

I used the following research question to guide my study: To what extent is there a relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention?

The research hypotheses were:

$H_0$ : There is not a statistically significant relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention.

*H<sub>a</sub>*: There is a statistically significant relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention.

I created two sections of the survey based on pre-established survey instruments, including Foronda et al.'s Cultural Humility Scale (2021) and the Michigan Organizational Assessment Questionnaire intent to leave measure (Cammann et al., 1979). The third section included the following demographic data: age, sex, and states in the Mid-West United States that the participant worked in. The purpose of the survey was to find what, if any, relationship existed between the five independent variables and the dependent variable. The independent variables were nurses' perceptions of the nurse manager's (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. I extrapolated the variable from the cultural humility practices identified in Foronda's (2020) theory of cultural humility, the theoretical framework for this study. At the same time, the dependent variable was nurse turnover intention.

### **Statistical Analysis**

I collected the data through SurveyMonkey, exported the data to Excel, and completed my statistical analysis with IBM SPSS Statistics 28.0. I then used multiple linear regression analysis for the correlational research design of this study. Multiple linear regression is a statistical analysis method that researchers use to examine the relationships between multiple independent variables and a single dependent variable (Bougie & Sekaran, 2020; Green & Salkind, 2017). Multiple linear regression is an

appropriate analysis method because I examined the relationship between five independent variables and one dependent variable. As the researcher, I identified the strength of linkage or co-occurrence between variables in a single value between -1 and +1 (Green & Salkind, 2017). Although the design was limited to linear relationships between variables, I visualized the relationship between the variables on a scatter plot to help verify that the variables had a linear relationship.

Researchers could use several data analysis techniques to examine the relationship between variables, including one-way analysis of variance (ANOVA), the independent sample *t*-test, and Pearson's *r*. Bougie and Sekaran (2020) and Green and Salkind (2017) described the one-way ANOVA test as a test researchers use to compare variances amongst the means of distinct groups. At the same time, Singh et al. (2021) and Kim (2017) explained that one-way ANOVA tests include an impartial variable and are a powerful way to evaluate for statistical significance in the difference between means. Researchers use the test to detect problems, trends, and opportunities based on the variables of interest (Singh et al., 2021). Researchers use the one-way ANOVA test when there is a single independent variable, and distinct levels of that variable could affect the dependent variable. The one-way ANOVA was inappropriate for my study because I had multiple independent variables that were not varied on levels.

Researchers use the independent-sample *t*-test to study and compare variables of interest, determining if two sample means are significantly different. Bougie and Sekaran (2020), Kim (2019), and Pollack and Cohen (1981) explained that researchers frequently used the test to compare two means independent of one another, such as gender: males

and females. Gerald (2018) and Green and Salkind (2017) described that researchers deem two samples independent if the sample values selected from one population are unrelated or not paired with the sample from the other population. Once calculated, the researcher can compare the  $t$ -test  $p$ -value to  $\alpha$  of .05 to determine the statistical significance. Once researchers determine significance, they can reject or accept the null hypothesis. The independent-sample  $t$ -test is inappropriate for statistical significance in my research, as I did not compare the mean differences of the variables of interest.

Researchers use Pearson's product-moment correlation coefficient to determine if there is a linear relationship between quantitative variables that are not independent or dependent. If the researcher identifies a linear relationship, they also assess the degree of the association or relationship. Bougie and Sekaran (2020), DeGhett (2014), and Puth et al. (2014) described Pearson's product-moment correlation as the most common measurement of association that researchers used to identify  $r$ . Puth et al. continued by describing  $r$  as a value that lies between -1 and 1. When  $r$  is zero, there is no linear association between the variables. However, if  $r$  is  $> 0$  but  $< 1$ , there is a positive linear relationship, and if  $r$  is  $< 0$  but  $> -1$ , there is a negative linear relationship. The closer the  $r$  value is to zero, the smaller the linear relationship. Because I did not assess the bivariate correlation between several data sets, Pearson's product-moment correlation was an inappropriate data analysis technique.

### **Data Cleaning and Screening**

Data cleaning and screening is an essential task that researchers must complete before statistical analysis. Bougie and Sekaran (2020) explained that the researcher must



manage blank or incomplete data and follow up on inconsistent data. I excluded incomplete surveys, which prevented me from conducting a missing value analysis. Researchers use missing value analyses to determine whether listwise or pairwise deletion is appropriate (Bougie & Sekaran, 2020). I activated SurveyMonkey features to assist in the survey exclusion process. If a participant attempted to skip a question in the online survey, the survey alerted them of the missed response. I set up a block in SurveyMonkey to not allow the participant to submit the survey without completing all questions. Although the method reduced the sample size and effected bias if the responses were intentionally left blank, deducing an answer based on the participants' prior answers or assigning the mean could also have created bias.

Outlier data is standard during data collection and can impact the research results. Bougie and Sekaran (2020) described an outlier as an observation drastically different from other observations. Furthermore, Pallant (2016) defined that values 3.3 standard deviations above or below the mean are outliers. A researcher can use a box plot, scatter plot, or histogram to identify and remove outliers (Aguinis et al., 2020; Yang et al., 2021). I used the box plot technique and removed any values 3.3 standard deviations above or below the mean because the outlier could disproportionately impact my findings.

### **Assumptions**

There are eight assumptions that a researcher must evaluate for multiple regression analysis. The first two relate to the study design and measurements, while the subsequent six relate to how the data fits the multiple regression model (Laerd Statistics, 2015). To achieve assumption one, a researcher must use one dependent variable

measured on an interval or ratio scale. In comparison, the researcher must have two or more independent variables measured on an interval, ratio, or nominal scale to attain assumption two. I measured my dependent and independent variables using Likert scales. Bougie and Sekaran (2020) explained that researchers generally identify Likert scales as interval scales because researchers can use the scales and calculate averages and standard deviations and use advanced statistical techniques with the data to test hypotheses. By using interval Likert scales, I met assumptions one and two.

There must be independence of observations for the researcher to achieve assumption three. Laerd Statistics (2015) explained that a researcher could check the assumption of independence of observations using the Durbin-Watson statistic. Draper and Smith (1998) described a lack of independence as autocorrelation, indicating assumption violation and that the researcher could not use multiple regression for the statistical analysis technique. The Durbin-Watson statistic ranges between 0.0 and 4.0, with a value of approximately 2.0 indicating no autocorrelation exists (Laerd Statistics, 2015). I ran the Durbin-Watson statistical analysis and accepted any value near 2.0 as independence. If the value was not near 2.0, I would have violated the assumption and needed to use a different statistical analysis technique.

Assumption four is the assumption of linearity. The researcher must identify a linear relationship between the dependent variable and each independent variable, as well as the dependent variable and the independent variables collectively (Laerd Statistics, 2015). I used a scatterplot to identify the linearity between the dependent and collective independent variables. Then I ran partial regression plots to assess the linearity between

the dependent variable and each independent variable. If I identified a non-linear relationship, I would have used the Box and Cox (1964) method to identify and transform the data. After data transformation, I would have repeated the scatterplots and partial regression plots to determine linearity.

Assumption five, the assumption of homoscedasticity, is that the variances along the line of best fit are similar when the researcher analyzes the variances throughout the line. I used the plots I created to evaluate for linearity and assess for homoscedasticity to see if the residuals increase, decrease, or stay the same across the predicted values. Laerd Statistics (2015) described that heteroscedasticity or significant variances along the line is indicative of assumption violation. If I would have identified an assumption violation, I would have transformed the data through a log, square root, or logarithmic transformation according to the skew of the data to obtain homoscedasticity.

I next checked for violations of assumption six. Laerd Statistics (2015) explained that assumption six is that the data is free from multicollinearity, or high correlation of two or more independent variables. I assessed the correlation coefficients for values greater than 0.7, because a value greater would indicate a high correlation between independent variables. Next, I evaluated the collinearity statistics of tolerance and VIF. Hair et al. (2014) described that a tolerance of less than 0.10 or VIF greater than 10.0 could indicate collinearity. If collinearity existed, there was an assumption violation, and I would have needed to drop one of the offending variables based on the theoretical framework.

The data must be free from significant outliers, high leverage points, and highly influential points to meet assumption seven. I used SPSS to run a case-wise diagnostics table to assess for outliers. Pallant (2016) defined that values 3.3 standard deviations above or below the mean are outliers. If I identified any outliers, I removed them and reran the regression analysis. After evaluating outliers, I assessed for high-leverage points by identifying leverage values greater than 0.2. Huber (1981) explained values of 0.2 as safe, 0.2 to less than 0.5 as risky, and 0.5 and above as dangerous. I determined if I should remove any values greater than 0.2 and repeated the analysis or proceed with the value noted. Lastly, I would have evaluated Cook's Distance values assessing for values above 1.0 which would indicate highly influential points. If I identified any highly significant values, I would either record the finding, remove the associated data, and rerun the regression or transform the data and rerun the regression.

Finally, I assessed the data for violations of assumption eight, normal distribution, by producing a histogram and P-Plot. A histogram in the shape of a bell curve indicates normal distribution. However, Laerd Statistics (2015) explained that the column width could erroneously depict a bell curve, so the researcher should confirm normality with a P-Plot. The data meet assumption eight if I assessed the P-Plot to have normal distribution along a diagonal line. If the data violated the assumption, I would have ran a regression analysis that does not need normal distribution, or I would have transformed that data in hopes of achieving normality.

## Inferential Results

I interpreted the inferential data to ensure that the multiple regression model was a good fit for the data, to understand the coefficients, and to make predictions of the dependent variable based on the values of the independent variable. Green and Salkind (2017) explained that scholars frequently rely on beta weights and the associated confidence intervals when interpreting inferential results. I reviewed the inferential results by examining beta weights, confidence intervals, significance values, coefficient of determination  $R^2$ , and  $F$  values. I further evaluated the  $P$ -values and regression coefficients to determine the nature of variable relationships and statistical significance.

Bougie and Sekaran (2020) described regression coefficients as mathematical relationships between independent and dependent variables. In comparison, researchers use beta weights to determine the regression effect contribution of an independent variable while all other independent variables remain constant (Green & Salkind, 2017). Furthermore, researchers use confidence intervals to predict the range of values of the actual population based on the probability of 95% containing the actual value (Bougie & Sekaran, 2020). Lastly, Green and Salkind (2017) and Bougie and Sekaran explained that  $R^2$  represents the coefficient of determination or a statistical measure of the goodness of fit. Researchers use the coefficient of determination to analyze if they can use the regression line to approximate the actual data points. The closer  $R^2$  is to 1.0, the better the fit. When  $R^2$  is 0.0, none of the variations have attributions with the independent variables. Saunders et al. (2016) explained that researchers use adjusted  $R^2$  when predictors are insignificant in a regression model. When adjusted  $R^2$  is much less than  $R^2$ ;

additional variables are not adding value to the model. I reviewed these and other inferential statistical results in section three.

### **Bonferroni Post Hoc Test**

After completing the initial data analysis, I used the Bonferroni test for post hoc analysis reducing the instances of false positives. VanderWeele and Mathur (2019) and Emerson (2020) explained that researchers use the Bonferroni test to run a series of *t*-tests on each pair of variables to identify type I errors. Post hoc testing is necessary because the chance of committing a type I error increases when conducting multiple analyses on the same dependent variable. While running the test in SPSS, I divided the significance level  $\alpha = 0.05$  by the number of comparisons, 5. After running the test, I summed the type I error rates, which equaled the original type I error rate. Next, I completed independent samples *t*-tests to look for differences between the pairs of groups and assessed the significance of the results using the alternative  $\alpha = 0.01$ . The post hoc analysis using the Bonferroni test prevented me from rejecting a true null hypothesis in the population.

### **Study Validity**

I used a quantitative correlational study to determine if and to what extent a relationship existed between nurses' perceptions of the nurse manager's (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention. In all studies, the researcher must ensure that their work is valid and reliable; as Saunders et al. (2016) explained, reliability and validity are central to quality quantitative research, and research is evaluated based on reliability and validity. Surucu and Maslkci (2020), Bougie and Sekaran (2020), Saunders

et al. (2016), and Heale and Twycross (2015) defined reliability as the replicability and consistency of the study, while validity is the appropriateness and accuracy of the measure the researchers used. Heale and Twycross further explained three types of validity: content, construct, and criterion. Reliability also has three components: homogeneity, stability, and equivalence (Heale & Twycross, 2015). Researchers use the validity and reliability tests to determine rigor and applicability to practice while ensuring the research yields beneficial results. By providing external validity, the researcher also authenticates the generalizability of results, ensuring that other researchers can apply the findings beyond the original scope (Saunders et al., 2016). Researchers use various strategies to mitigate the threats to the validity of nonexperimental research. I evaluated and determined the reliability of the instruments in the instrumentation section, so I focused on the validity of the study outcomes.

### **Internal and External Validity**

Researchers assess internal validity when they use experimental and quasi-experimental research designs. Slocum et al. (2022) and da Costa Palacio et al. (2021) described internal validity when researchers establish a causal relationship between factors after eliminating biases and other explanations. Saunders et al. (2016) further explained external validity as the extent to which the study findings are generalizable to different samples, situations, and measures. Because I used a correlational study to examine relationships, I did not assess internal validity but addressed external validity.

### **Statistical Conclusion Validity**

Researchers create statistical conclusion validity when the researcher draws conclusions founded on adequate data analysis. García-Pérez (2012) and Grigsby and McLawhorn (2019) explained that inadequate data analysis and missing data could yield erroneous findings, such as concluding that a relationship exists when it does not or concluding that a relationship does not exist when it does. These are also known as type I and II errors. Contributing factors of inadequate data analysis or missing data include the instrument's reliability, violations of data assumptions, and improper sample sizes.

### ***Instrumentation Reliability***

The reliability of the data collection instrument could negatively impact the reliability of the study. Bougie and Sekaran (2020) and Saunders et al. (2016) explained instrumentation reliability is the extent to which the data collection method gives the same results every time. I demonstrated my chosen instruments' reliability by utilizing Cronbach's alpha ( $\alpha$ ) method. Green and Salkind (2017) described Cronbach's reliability coefficient ( $\alpha$ ) as a standard measure of an instrument's internal consistency. I examined Cronbach's alpha to determine the internal consistency reliability of the pre-established tools I used for my study. Kalkbrenner (2021) explained that Cronbach's alpha coefficient could range from 0 to 1. Similarly, Cronbach (1951) noted that  $>0.90$  is excellent,  $0.80 - 0.89$  is good,  $0.70 - 0.79$  is acceptable,  $0.60 - 0.69$  is questionable, and  $0.50 - 0.59$  is poor. The pre-established psychometric scales I used had sufficient reliability values of 0.85 and 0.83 for the cultural humility and intent to leave scales, respectively. The good reliability values supported the validity of my study.



### ***Data Assumptions***

There are five data assumptions underlying multiple linear regression data analysis. Green and Salkind (2017) identified the assumptions as linearity, homoskedasticity, independence of errors, normality, and independence of the independent variables. There are two alternative sets of assumptions for multiple linear regression—one for the fixed model approach and the other for random-effects modeling. Giesselmann and Schmidt-Catran (2022) described that researchers use the fixed model of assumptions for experimental studies. Because I conducted a nonexperimental, quantitative correlational study, the random effects model of assumptions was more appropriate.

The validity of the random-effects model depends on four assumptions. Green and Salkind (2017) described the four assumptions, including random selection of the sample, independence of scores for the values of the dependent variable, multivariate normal distribution of the variables, and linearity between each independent variable and the dependent variable. Although Green and Salkind identified four assumptions, Knief and Forstmeier (2021) emphasized the two most essential assumptions researchers should continually assess: the assumptions of normally distributed data and linear relationships between variables. Green and Salkind explained that the non-normal distribution of variables and outliers could distort the actual value of the mean. Researchers can look for and identify outliers through visual inspection methods such as histograms, frequency of distributions, or converting data into  $z$ -scores (Yang et al., 2021). I created histograms during my data analysis to identify outliers.

I also validated the random sampling assumption. I used non-probabilistic and snowball sampling to gain study participants, resulting in random sampling. If I failed to validate either of the assumptions during my data review, I would have needed to perform a suitable transformation of the data (West, 2022). I addressed the assumptions of spatial independence and homoscedasticity if I found them during data analysis. Green and Salkind (2017) and Flores and Ocaña (2022) explained that a researcher could expect homoscedasticity, residuals, to have an even distribution around zero or the horizontal line. A growing dispersion of the residuals with larger or lower predicted values is a sign of heteroscedasticity. I created a scatterplot of each independent variable and the dependent variable to assess and validate the linearity. Upon reviewing the scatterplot, I concluded the attainment of the homoscedasticity assumption.

Researchers use the multiple linear regression model to evaluate spatial dependence in linear and panel regressions while assuming normality and homoscedasticity. Researchers can also use the Lagrange multipliers (LM) tests to determine spatial dependence in linear regressions (Mach, 2022). However, Mach explained that the LM test might not be robust enough against the disturbances of non-normality or heteroscedasticity. If needed, I would have adopted Born and Breitung's (2011) general methods to modify the standard LM tests. By adopting the test, I could have created strength against heteroscedasticity and nonnormality. Which will degrade the total score function allowing me to estimate the variances of the outer product gradient. Lastly, I used the bootstrapping feature in SPSS to ensure the accuracy of the regression analysis results.

### ***Sample Size and Statistical Power***

Researchers must meet or exceed the minimum sample size to generalize their findings. Süt et al. (2022) explained that sample sizes directly impact the results of studies. Furthermore, Schuster et al. (2021) described statistical power as the probability of detecting the relationship the researcher is looking for if the relationship exists. Süt et al. and Schuster et al. explained that studies with inappropriate samples and low statistical power reduce the chance that the researcher will detect an actual relationship. Those facts make it imperative for the researcher to choose a representative sample with adequate statistical power to bolster external validity (Saunders et al., 2016). I calculated the sample size and statistical power based on the multiple linear regression, using the two-tailed, random-effects model, G\*Power3 sample size calculation with 5 independent variables. After completing the power analysis using Faul et al.'s (2009) G\*Power Version 3.1.9.7, I determined the minimum appropriate size for this study to be 102 participants. A priory effect size of  $f = .15$  and  $\alpha = .05$  for a minimum of 102 participants is needed to achieve a power of .85.

Once I received at least 102 qualified and completed responses, I exported the raw data from SurveyMonkey into an Excel spreadsheet. I then loaded the data into IBM SPSS Statistics, Version 28, for data analysis. I did not need to code missing values as 999 because I excluded the use of incomplete survey data. By excluding incomplete surveys I prevented from the need to conduct a missing value analysis. Researchers generally use missing value analyses to determine whether listwise or pairwise deletion is appropriate (Bougie & Sekaran, 2020). I activated SurveyMonkey features to assist me in

the survey exclusion process. If a participant attempted to skip a question in the online survey, the participant received an alert of the missed response. I set up a block in SurveyMonkey to not allow the participant to submit the survey without completing all questions. By using these procedures, I ensured statistical conclusion validity.

### **Transition and Summary**

In section two, I restated the purpose statement; explained my role as the researcher and the participants; identified the research method, rationale, and design; presented ethical considerations; and discussed the data collection and analysis processes. Through data analysis, I had an opportunity to examine to what extent there was a relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention. I presented the results of the data analysis in section three.

### Section 3: Application to Professional Practice and Implications for Change

The purpose of this quantitative correlational study was to examine the relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention. The independent variables were nurses' perceptions of the nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. The dependent variable was nurse turnover intention. The model was able to significantly predict turnover intentions,  $F(5, 135) = 5.285, p < .001, R^2 = .164$ . The  $R^2 (.164)$  value indicated that approximately 16% of variations in turnover intention were accounted for by the linear combination of the predictor variables: (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. In the final model, supportive interactions predicted turnover intention ( $t = -3.003, p = .003$ ).

#### **Presentation of the Findings**

The research question and hypotheses for this study were the following:

To what extent is there a relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention?

$H_0$ : There is not a statistically significant relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention.

*H<sub>a</sub>*: There is a statistically significant relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention.

The independent variables were nurses' perceptions of the nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. The dependent variable was nurse turnover intention. The selected population for my study consisted of registered nurses who work in the Midwest United States. Twelve states comprise the Midwest United States: North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana, and Ohio. The participants must have currently worked as a registered nurse in one or more of the 12 identified states, with no exemptions for length of service as a registered nurse. Initially, the sample included 179 registered nurses from the Midwest United States. However, 38 responses were deleted due to missing values and survey abandonment before completion. The final sample size was 141.

### **Descriptive Statistics**

Descriptive statistical analyses were used to describe the characteristics of the sample and mean scores on each scale (see Table 2). The mean score for openness was 3.50 with a standard deviation of 1.16. The mean score for self-reflection and critique was 3.00 with a standard deviation of 1.29. The mean score for awareness was 3.15 with a standard deviation of 1.22. The mean score for egolessness was 3.18 with a standard deviation of 1.30. The last cultural humility attribute was supportive interactions, with a mean score of 3.65 and a standard deviation of 1.15. Higher scores on the survey for

cultural humility indicate a more positive perception of the nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. The mean score for turnover intention was 3.31 with a standard deviation of 1.70. A lower score on the turnover intention scale indicates a decreased likelihood of turnover intention.

**Table 2**

*Descriptive Statistics*

		Bootstrap					
				95% Confidence Interval			
		Statistic	Std. Error	Bias	Std. Error	Lower	Upper
Openness	N	141					
	Range	4.00					
	Minimum	1.00					
	Maximum	5.00					
	Mean	3.5035	.09791	-.0076	.0990	3.2658	3.6879
	Std. Deviation	1.16266		-.00854	.05308	1.04575	1.26046
	Variance	1.352		-.017	.122	1.094	1.589
	Skewness	-.382	.204	.002	.121	-.620	-.103
	Kurtosis	-.768	.406	.026	.206	-1.142	-.280
Self-reflection and critique	N	141					
	Range	4.00					
	Minimum	1.00					
	Maximum	5.00					
	Mean	3.0071	.10864	-.0100	.1095	2.7843	3.2157

		Bootstrap				
		95% Confidence Interval				
		Interval				
	Statistic	Std. Error	Bias	Std. Error	Lower	Upper
Awareness	Std. Deviation	1.29005		-.01058	.05288	1.15774 1.38348
	Variance	1.664		-.024	.135	1.340 1.914
	Skewness	-.054	.204	.009	.109	-.241 .202
	Kurtosis	-1.016	.406	.032	.124	-1.229 -.679
	N	141				
	Range	4.00				
	Minimum	1.00				
	Maximum	5.00				
	Mean	3.1489	.10311	-.0055	.1068	2.9231 3.3860
	Std. Deviation	1.22437		-.00318	.05460	1.11391 1.32286
	Variance	1.499		-.005	.133	1.241 1.750
	Skewness	-.313	.204	.007	.114	-.520 -.061
	Kurtosis	-.822	.406	.010	.175	-1.136 -.492
	Egolessness	N	141			
Range		4.00				
Minimum		1.00				
Maximum		5.00				
Mean		3.1844	.10962	-.0058	.1063	2.9616 3.3718
Std. Deviation		1.30166		-.00543	.05724	1.18109 1.39824
Variance		1.694		-.011	.148	1.395 1.955
Skewness		-.309	.204	.002	.110	-.502 -.091
Kurtosis		-.949	.406	.016	.168	-1.221 -.518



		Bootstrap					
		95% Confidence Interval					
		Statistic	Std. Error	Bias	Std. Error	Lower	Upper
Supportive interaction	N	141					
	Range	4.00					
	Minimum	1.00					
	Maximum	5.00					
	Mean	3.6525	.09706	-.0078	.1038	3.4296	3.8611
	Std. Deviation	1.15255		-.00556	.05523	1.03140	1.24816
	Variance	1.328		-.010	.126	1.064	1.558
	Skewness	-.451	.204	.018	.130	-.725	-.189
	Kurtosis	-.759	.406	-.003	.215	-1.105	-.284
	Intent to Leave	N	141				
Range		5.00					
Minimum		1.00					
Maximum		6.00					
Mean		3.3050	.14268	.0097	.1443	3.0467	3.5887
Std. Deviation		1.69429		-.00848	.06401	1.54550	1.81966
Variance		2.871		-.025	.215	2.389	3.311
Skewness		.065	.204	-.012	.123	-.249	.289
Kurtosis		-1.226	.406	.019	.105	-1.418	-.957

Demographic frequencies are presented in Table 3. Of the 141 participants, 78% ( $n = 110$ ) identified as female, while the remaining 22% ( $n = 31$ ) identified as male. Participants represented all 12 Midwest states with the top three states as follows: 29.1% ( $n = 41$ ) from Wisconsin, 17.7% ( $n = 25$ ) from Illinois, and 12.8% ( $n = 18$ ) from Ohio.

There was only 1 participant (0.7%) from North Dakota, Nebraska, and Iowa. Most of the participants had been a nurse for more than 5 years, with 21.3% ( $n = 30$ ) being a nurse for 5–9 years, 28.4% ( $n = 40$ ) being a nurse for 10–19 years, and 34% ( $n = 48$ ) being a nurse for 20 or more years. Tenure in current nursing position ranged from less than 1 year ( $n = 15$ ) to more than 20 years ( $n = 15$ ). Also, the age of participants ranged from 21 to 70 years ( $M = 43.6$ ).

**Table 3***Demographic Statistics*

		Frequency	Percentage
Gender	Female	110	78.0
	Male	31	22.0
	Total	141	100.0
State	North Dakota	1	.7
	South Dakota	9	6.4
	Nebraska	1	.7
	Kansas	2	1.4
	Minnesota	13	9.2
	Iowa	1	.7
	Missouri	8	5.7
	Wisconsin	41	29.1
	Illinois	25	17.7
	Michigan	16	11.3
	Indiana	6	4.3
	Ohio	18	12.8
	Total	141	100.0
How long have you been a nurse?	Less than 1 year	1	.7
	1–2 years	10	7.1
	3–4 years	12	8.5
	5–9 years	30	21.3
	10–19 years	40	28.4
	20 or more years	48	34.0
	Total	141	100.0

		Frequency	Percentage
About how long have you been in your current position?	Less than 1 year	15	10.6
	1–2 years	16	11.3
	3–4 years	36	25.5
	5–9 years	37	26.2
	10–19 years	22	15.6
	20 or more years	15	10.6
	Total	141	100.0
At the time of the survey how many years old are you?	21	1	.7
	22	1	.7
	23	2	1.4
	24	2	1.4
	25	3	2.1
	26	3	2.1
	27	2	1.4
	28	7	5.0
	29	3	2.1
	30	4	2.8
	31	2	1.4
	33	4	2.8
	34	7	5.0
	35	9	6.4
	36	4	2.8
	37	5	3.5
	38	5	3.5
	39	2	1.4
	40	2	1.4
	41	3	2.1
	42	2	1.4
43	3	2.1	
44	1	.7	
45	2	1.4	
46	1	.7	
47	4	2.8	
48	3	2.1	
49	2	1.4	
50	5	3.5	
51	5	3.5	
52	4	2.8	
53	1	.7	
54	2	1.4	
56	3	2.1	

	Frequency	Percentage
57	2	1.4
58	3	2.1
59	3	2.1
60	2	1.4
61	3	2.1
62	3	2.1
63	4	2.8
64	4	2.8
65	3	2.1
66	2	1.4
67	1	0.7
69	1	0.7
70	1	0.7

In Table 4, cultural humility rankings are presented with 62.41% ( $n = 88$ ) of nurses perceiving their nurse manager as sometimes culturally humble, 9.21% ( $n = 13$ ) of the participants perceiving their nurse manager as rarely culturally humble, and 9.21% ( $n = 13$ ) of the participants perceiving their nurse manager as habitually culturally humble.

**Table 4**

*Cultural Humility Statistics*

	Frequency	Percentage
Cultural Humility Score		
Rarely Culturally Humble	13	9.21
Sometimes Culturally Humble	88	62.41
Usually Culturally Humble	27	19.15
Habitually Culturally Humble	13	9.21
Total	141	100

### **Tests of Assumptions**

I evaluated the assumptions of multicollinearity, outliers, normality, linearity, homoscedasticity, and independence of residuals. I used the box plot technique and removed any values 3.3 standard deviations above or below the mean because they could have disproportionately impacted my findings. To test the first assumption, I used one dependent variable that I measured on an interval or ratio scale. I used five independent variables measured on an interval, ratio, or nominal scale to test the second assumption. I measured my dependent and independent variables using Likert scales. Bougie and Sekaran (2020) explained that researchers generally identify Likert scales as interval scales because researchers can use them and calculate averages and standard deviations and use advanced statistical techniques with the data to test hypotheses. By using interval Likert scales, I satisfied the first and second assumptions. I ran the Durbin-Watson statistical analysis and accepted the value of 2.17 as independence while testing for observations of independence, as shown in Table 5.

**Table 5***Durbin-Watson Statistic*

Model	<i>R</i>	Adjusted Square <i>R</i> Square	Std. Error of the Estimate	Change <i>R</i> Square	Change Statistics			Sig. <i>F</i> Change	Durbin- Watson	
					<i>F</i>	Change df1	df2			
1	.405 <sup>a</sup>	.164	.133	1.57784	.164	5.285	5	135	<.001	2.170

a. Predictors: (Constant), When encountering a conflict or difference in perspective, how often do you perceive that your nurse manager: (a) Strives for a supportive interaction, (b) Attempts to shed their ego, (c) Self-reflects and critiques themselves afterward, (d) aware of their own biases, (e) Attempts to be open to considering the differing perspective?

b. Dependent Variable: Intent to Leave

Multicollinearity or high correlation of two or more independent variables did not exist. I assessed the correlation coefficients for values greater than 0.7, tolerances less than 0.10, or VIFs greater than 10.0, indicating collinearity. As shown in Table 6, the values did not indicate a high correlation.

**Table 6***Collinearity Statistic*

Model	Unstandardized Coefficients		Standardized Coefficients		<i>t</i>	95.0% Confidence Interval for B			Correlations		Collinearity Statistics		
	<i>B</i>	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
Openness	-.187	.198	-.128		-.948	.345	-.578	.203	-.300	-.081	-.075	.337	2.965
Self- reflection and critique	.094	.165	.072		.574	.567	-.231	.420	-.171	.049	.045	.394	2.539
Awareness	-.015	.163	-.011		-.094	.925	-.338	.308	-.236	-.008	-.007	.444	2.250
Egolessness	.116	.141	.089		.825	.411	-.163	.395	-.146	.071	.065	.528	1.895
Supportive interactions	-.555	.185	-.378		-3.003	.003	-.921	-.190	-.392	-.250	-.236	.392	2.553

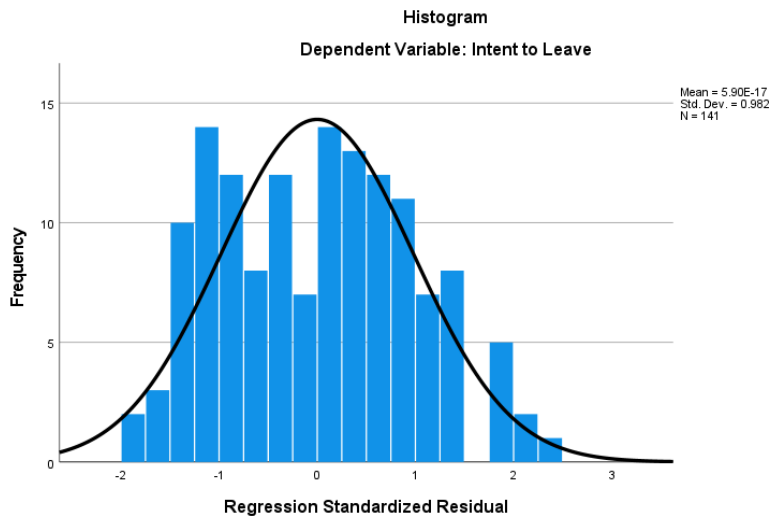
I ran a case-wise diagnostics table using SPSS to assess for outliers. After evaluating outliers, I assessed for high-leverage points by identifying leverage values greater than 0.2. No outliers or high-leverage points were identified in the case wise diagnostics, so data points were removed as shown in Table 7. Lastly, I identified a bell curve in the Figure 5 histogram.

**Table 7**

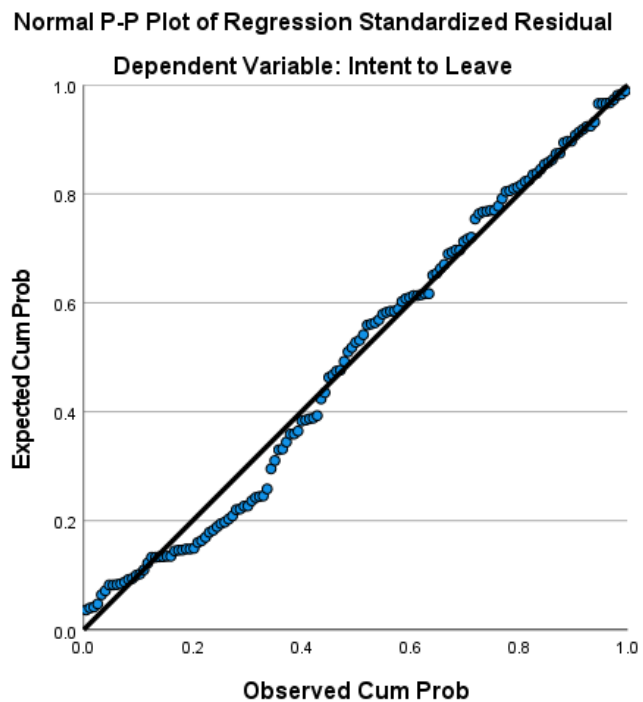
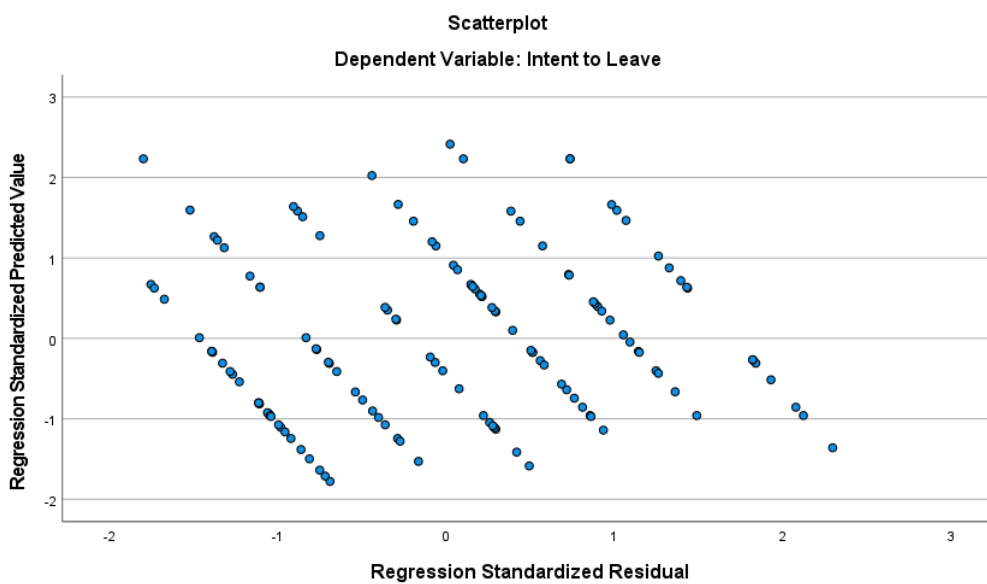
*Casewise Diagnostics*

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.0863	4.9601	3.3050	.68552	141
Residual	-2.83558	3.62682	.00000	1.54941	141
Std. Predicted Value	-1.778	2.414	.000	1.000	141
Std. Residual	-1.797	2.299	.000	.982	141



**Figure 5***Intent to Leave Histogram*

Furthermore, I tested for linearity using a scatterplot to identify the linearity between the dependent and collective independent variables. I then ran a partial regression plot to assess the linearity between the dependent variable and each independent variable as seen in Figures 6 and 7. Assumption five, the assumption of homoscedasticity, was met as variances along the line of best fit were similar when I analyzed the variances throughout the line. All assumptions were met.

**Figure 6***Collective Linearity***Figure 7***Partial Regression Plot*

## Inferential Results

Standard multiple linear regression,  $\alpha = .05$  (two-tailed), was used to examine the efficacy of nurses' perceptions of the nurse manager's (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions predicting turnover intention. The independent variables were: (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions. The dependent variable was turnover intention. The null hypothesis was there is not a statistically significant relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention. The alternative hypothesis was that there was a statistically significant relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention. I conducted preliminary analyses to assess whether the assumptions of multicollinearity, outliers, normality, linearity, and independence of residuals were met; no assumption violations were noted. The model as a whole could predict turnover intentions significantly,  $F(5, 135) = 5.285, p < .001, R^2 = .164$ . The  $R^2 (.164)$  value indicated that approximately 16.4% of variations in turnover intentions were accounted for by the linear combination of the predictor variables (nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions). In the final model, supportive interactions ( $t = -3.003, p = .003$ ) negatively

correlated with nurse turnover intention. The other predictor variables were not statistically significant. Table 8 depicts the regression summary.

**Table 8**

*Regression Summary*

Model	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.	95.0% Confidence Interval for B	
	<i>B</i>	Std. Error	Beta			Lower Bound	Upper Bound
Openness	-.187	.198	-.128	-.948	.345	-.578	.203
Self-reflection and critique	.094	.165	.072	.574	.567	-.231	.420
Awareness	-.015	.163	-.011	-.094	.925	-.338	.308
Egolessness	.116	.141	.089	.825	.411	-.163	.395
Supportive interactions	-.555	.185	-.378	-3.003	.003	-.921	-.190

**Bonferroni Post Hoc Test**

After completing the initial data analysis in SPSS, I completed post hoc testing to prevent a type I error. I divided the significance level  $\alpha = 0.05$  by the number of comparisons, 5, resulting in an alternative  $\alpha = 0.01$ . I completed independent samples *t*-tests to look for differences between the pairs of groups and assess the significance of the results using the alternative  $\alpha = 0.01$ . With the alternative  $\alpha = 0.01$ , openness continued to have statistical significance ( $i = < .001$ ), confirming no type I errors in Table 9.

**Table 9***Independent Samples t Test*

	Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
	<i>F</i>	Sig.	<i>t</i>	df	Significance		Mean Difference	Std. Error Difference	Lower	Upper
					One- Sided <i>p</i>	Two- Sided <i>p</i>				
Openness	11.094	.002	3.021	48	.002	.004	.98264	.32525	.32868	1.63660
Self- reflection and critique	6.231	.016	1.781	48	.041	.081	.70833	.39779	- .09148	1.50815
Awareness	4.400	.041	3.077	48	.002	.003	1.02083	.33180	.35371	1.68796
Egolessness	.676	.415	1.534	48	.066	.132	.61111	.39842	- .18997	1.41220
Supportive interactions	13.154	<.001	4.616	48	<.001	<.001	1.32639	.28733	.74867	1.90411

**Analysis Summary**

The purpose of this quantitative, correlational study was to examine the relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention. I used standard multiple linear regression to examine the ability of nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness,

(c) egolessness, (d) self-reflection and critique, and (e) supportive interactions to predict turnover intention. Assumptions surrounding multiple regression were assessed, with no violations noted. The model as a whole was able to significantly predict turnover intention,  $F(5, 135) = 5.285, p < .001, R^2 = .164$ . The conclusion from this analysis is that there was a statistically significant relationship between nurses' perceptions of their nurse managers' supportive interactions and nurse turnover intention ( $t = -3.003, p = .003$ ), leading me to reject the null hypothesis and accept the alternative hypothesis.

### **Comparison of Findings Within the Literature**

The results of the hypothesis testing revealed that there was a statistically significant relationship between nurses' perceptions of their nurse managers' supportive interactions and nurse turnover intention. Although this is the first study in which a researcher analyzed components of cultural humility concerning nurse turnover intention, the results do relate to what is found in the literature. Individuals who portray the practices and principles of cultural humility improve communication, satisfaction, empowerment, partnerships, respect, optimal care, health, and wellness outcomes. Campos-Moreira et al. (2020), Krumrei-Mancuso and Rowatt (2023), Markey et al. (2021), and Skeet (2021) emphasized the need for leaders to incorporate cultural humility to address the inequities that exist in the workplace. Humble leaders who radiate humility can create inclusive workplace cultures that support and nurture staff.

Cultural humility is more significant than a policy to address diversity, equity, and inclusion. Tervalon and Murray-Garcia (1998), Tervalon et al. (2021), and Tervalon (2021) explained the expansive nature of culture beyond race and ethnicity. Leaders who

use cultural humility could transform rigid workplace cultures into cultures that align with the needs and expectations of an ever-changing society. Anderson et al. (2022), Murray et al. (2022), and Zhang et al. (2021) explained that there was a gap in the literature regarding the relationship between cultural humility and supervision. The researchers indicated that supervisory portrayal of cultural humility could help leaders create an environment of justice, equity, and diversity within the workplace whenever there is a power imbalance or differing perspectives leading to supportive interactions. However, as indicated by the results of my study, not all cultural humility attributes were significantly related to nurse turnover intention.

### **Interpretation of Findings Within the Theoretical Framework**

Foronda (2020) developed the theory of cultural humility after realizing that leaders in numerous disciplines, such as education, business, medicine, and nursing, began identifying the importance of applying cultural humility for successful outcomes in diverse situations. Using previous work, Foronda blended concepts from Leininger's (1988, 1996, 2002) cultural care theory and definitions from Tervalon and Murray-Garcia (1998), Cross et al. (1989), Yeager and Bauer-Wu (2013) and Foronda et al. (2016). Foronda created the theory of cultural humility and the corresponding rainbow model to help individuals in positions of power to be open, self-aware, egoless, and flexible. Those in power positions can better thrive in a complex and diverse world by displaying such characteristics. The results of the study did provide a relationship to understanding nurse turnover intention concerning one of the five cultural humility attributes, supportive interactions.

### **Application to Professional Practice**

Healthcare leaders and nurse managers can apply cultural humility attributes, specifically supportive interactions, learned from this study to improve nurse retention in their organizations. From this research, I found that not all cultural humility attributes are related to nurse turnover intention. Nurse managers' understanding of what supportive interactions nurses need could result in an effective nurse retention strategy. Furthermore, understanding strategies that improve nurse retention could lead to increased nurse well-being, protection against burnout, improved retention, and increased patient safety (Koprowski et al., 2021; Pappas, 2021). Healthcare leaders must continue to actively monitor why nurses are leaving their current employment and the field to best respond to the growing demands of healthcare. The applicability of the findings concerning the nursing profession and healthcare business practices is reducing the cost of nurse turnover while increasing system sustainability and patient outcomes.

### **Implications for Social Change**

The findings of this study indicate, further research is needed regarding supportive interactions for positive social change related to nurse retention. Increased nurse retention could also result in positive social change through increased health system sustainability, access to timely and high quality healthcare, and promotion of a healthy community. The benefits of a healthy community include lower chronic disease burden, improved health outcomes, and decreased economic burden associated with disease management and health inequity (Bauer, 2019). Chi (2020), Muir et al. (2021), and Nei et al. (2015) explained that nurses are responsible for ensuring patient care and safety



through assessments, interventions, monitoring, and clinical decision-making. However, as retention decreases and healthcare entities struggle with the associated staffing shortages, patient care, and safety are negatively impacted. Nurse manager retention strategies could result in increased patient safety, adequate staff-to-patient ratios, improved patient satisfaction, timely care, a healthier community, and decreased adverse patient events, all aspects of positive social change.

### **Recommendations for Action**

This quantitative correlational study explored the relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions and nurse turnover intention. The research findings included a statistically significant relationship between nurses' perceptions of their nurse managers' supportive interactions and nurse turnover intention. The anonymous survey participants provided valuable insights into their perceptions of nurse managers and the participants turnover intention. Recommended actions include a deeper dive into how nurse managers can increase supportive interactions with nurse subordinates, cultural humility training to teach supportive interactions, and health system engagement in nurse retention strategies through cultural humility. Healthcare leaders and nurse managers should develop strategies to create and implement supportive interactions with nurses to increase retention and healthcare sustainability.

Nurse leaders serve several roles within the healthcare industry, including overseeing nursing units, establishing procedures and protocols, holding staff accountable to the policies and protocols, determining and setting staffing levels, and supervising

staff. Nurse leaders are vital in shaping the outcomes of both patients and personnel (Cummings et al., 2021). Al Sabei et al. (2020), White et al. (2020), and Poku et al. (2022) described a healthy work environment as an environment that is collaborative, fair, flexible, and challenging that also provides the opportunity for learning and growth. Nurse leaders can facilitate and support a healthy work environment by creating policies and procedures to enforce and hold others accountable to the expectations. Nurses will then feel safe, supported, and inspired in their work environment. The findings of my study could help nurse managers and healthcare leaders increase supportive nursing interactions resulting in healthcare sustainability. I will share my study findings with other healthcare professionals through scholarly journals and business publications. Also, I will share the findings in the ProQuest Dissertations and Theses database for future use and review.

### **Recommendations for Further Research**

I recommend further research on nurse turnover intention based on the findings of this study. The results of the literature review indicated that nurses are more likely to seek employment elsewhere if they are unsatisfied, unengaged, and burnout (Hu et al., 2022; NSI Nursing Solutions Inc., 2022; Tang et al., 2022). The goal of this study, however, was to identify if a relationship between nurses' perceptions of their nurse managers' (a) openness, (b) self-awareness, (c) egolessness, (d) self-reflection and critique, and (e) supportive interactions also existed. Further research should be conducted to examine the relationship between Foronda's (2020) fourteen other cultural humility attributes and employee turnover intention. Further research into the other fourteen attributes with a

similar model could also result in a higher  $R^2$  value. As well, further research into supportive interactions is warranted. Healthcare employers need to understand how to retain their nurses, and further research would help to identify effective strategies.

The findings of this study are limited by geographic setting, as all participants in the study were registered nurses in 12 Midwest United States states; the nurses' views may not represent the views of all nurses in the healthcare industry. Future research should broaden the geographic setting of this study to include nurses from across the United States. Further research should also broaden the scope of the target population to help healthcare leaders identify variables that influence turnover intention with other nurse staff, including nurse practitioners, nursing assistants, medical assistants, and licensed practical nurses. Suppose a researcher broadened the target population to include the entire United States with a broader definition of nursing staff. In that case, the findings of the study could produce results with greater insight for healthcare leaders through validating or invalidating the findings of this study. Future research should also address the limitations of this study, including limitations related to the study's design because causality cannot be determined from a correlational study.

With future research, utilizing an experimental design could increase understanding. An experimental design could enable more profound insight into the causal relationship between the variables (Saunders et al., 2016). Examples of experimental or quasi-experimental studies could include having one group of nurse managers attend cultural humility training regarding supportive interactions and another group not, then studying the intention to leave between the two manager groups. The

experimental design could also occur in several healthcare settings, including long-term care facilities, hospitals, and clinics. This type of design could add to the body of literature and increase healthcare leaders' understanding of turnover intentions related to nurses' perceptions of their nurse manager even though the participants in this study had various experiences and job duties.

### **Reflections**

The Doctorate in Business Administration coursework and capstone process is one of the most difficult journeys I have encountered. I experienced challenges, triumphs, days I wanted to give up, and perseverance. Through this process, I worked to balance a full-time job, raising two young sons, being present for my husband, and school. Every step was rigorous and took careful planning and execution. From the prospectus to the proposal, oral defenses, and institutional review board approval, I had to ensure accuracy, clear communication, and timely responses. I worked diligently to meet and exceed the requirements of doctoral-level work by pushing my writing, communicating, and networking to the next level. I found great joy in finding two groups of colleagues on the same path as me. One of the groups had an immense drive that aided me in pushing through the setbacks and frustrations. The other group was Team Dooley. I owe much of my patience and perseverance to Team Dooley, as the team of current and graduated scholars worked as one unit. Since I began working in healthcare, examining nurse turnover has been my personal and professional interest. My active interest in the subject helped to drive me to the finish line. As a healthcare chief executive officer, the findings

of the study are invaluable to me. As the diversity of healthcare and the United States grows, cultural responsiveness is vital.

### **Conclusion**

The results of the hypothesis testing revealed that there was a statistically significant relationship between nurses' perceptions of their nurse managers' supportive interactions and nurse turnover intention. Therefore, I rejected the null hypothesis and accepted the alternative hypothesis. This study was the first to investigate the relationship between cultural humility attributes and nurse turnover intention. The findings indicated that further research is needed concerning nurse turnover intention related to nurse perceptions of their nurse managers' supportive interactions. The results also suggested that healthcare leaders should continue pursuing avenues to decrease nurse turnover but leaders must first identify the type of supportive interactions nurses seek. The results of this study are valuable to healthcare leaders because they provide essential knowledge regarding the significant relationship between nurses' perceptions of their nurse managers' supportive interactions and turnover intention.

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### Appendix A: Power Analysis Results

After completing the power analysis using Faul et al.'s (2009) G\*Power version 3.1.9.7, I determined the minimum appropriate size for this study to be 102 participants. A priory effect size of  $f = .15$  and  $\alpha = .05$  for a minimum of 102 participants is needed to achieve a power of .85. The availability of a larger sample size could increase the strength and power of the variable relationships. For example, examining 184 participants would increase the power to 0.99; thus, the sample size I will use will be between 102 and 184, as presented in Figure 4.

## Appendix B: Online Survey: Participation Invitation Post



Caption: There is a new study about The Relationship Between Nurse Managers' Cultural Humility Practices and Nurse Retention. The study may help nurse leaders better understand nurse turnover intention, resulting in increased employee retention and improved healthcare sustainability.

I am seeking participants who meet the following criteria:

- Currently working as a registered nurse in one or more of the following 12 Midwest States: North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana, and Ohio.

For this study, you will be asked questions about your perceptions of

- your nurse manager's openness, self-awareness, ego-lessness, self-reflection and critique, supportive interactions
- and your turnover intention.

The survey will be:

- Conducted online using SurveyMonkey
- Entirely voluntary
- Anonymous
- And will take 15-20 minutes

If you would like to participate in the study, please click the survey link below.

<https://www.surveymonkey.com/r/G8S8HLG>

This survey is part of the doctoral study for Jessica Scharfenberg, a DBA student at Walden University.



## Appendix C: Permission to Use Foronda's Cultural Humility Scale

**Fw: [EXTERNAL] Request to use Cultural Humility Scale**

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**From:** Foronda, Cynthia L <c.foronda@miami.edu>  
**Sent:** Tuesday, December 20, 2022 11:57 AM  
**To:** Jessica Scharfenberg <jessica.scharfenberg@waldenu.edu>  
**Subject:** Re: [EXTERNAL] Request to use Cultural Humility Scale

Hi Jessica,

Yes, you have my permission to use the instrument.

Best,  
Cindy

**Cynthia Foronda, PhD, RN, CNE, CHSE, ANEF, FAAN**  
**Assistant Dean for Innovation, Clinical Research, and Scholarship**  
**Professor of Clinical**  
**University of Miami**  
**School of Nursing and Health Studies**  
**5030 Brunson Drive, Room 315**  
**Coral Gables, FL 33146**  
Phone: 305.284.1525  
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[c.foronda@miami.edu](mailto:c.foronda@miami.edu)  
Twitter: @CForondaPhDRN  
2019-2020 President, International Nursing Association for Clinical Simulation and Learning  
2018-2020 Macy Faculty Scholar

Appendix D: Foronda's Cultural Humility Scale

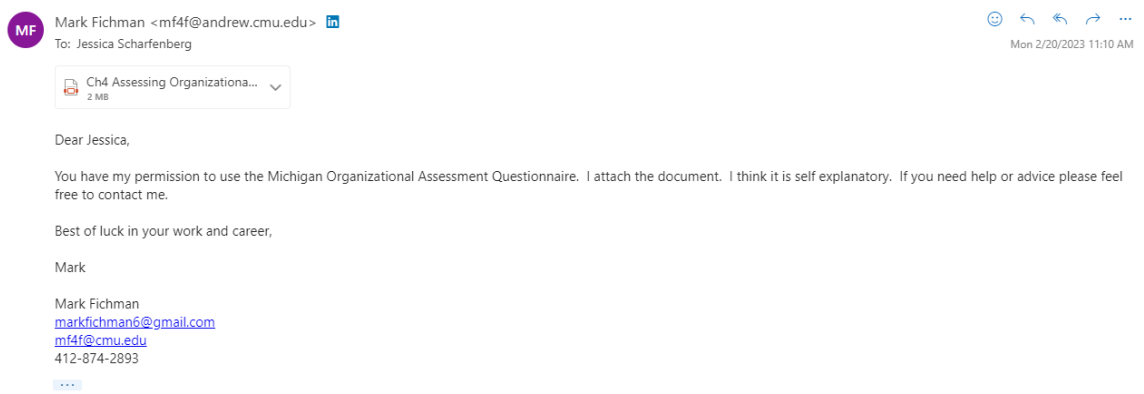
**When encountering a conflict or difference in perspective, how often do you perceive that your nurse manager:**

1. Considers diversity as a factor for difference in perspective?  
Never/Rarely Once in a while Sometimes Usually All the time
2. Considers the physical environment as a factor for difference in perspective?  
Never/Rarely Once in a while Sometimes Usually All the time
3. Considers the historical precedent as a factor for difference in perspective?  
Never/Rarely Once in a while Sometimes Usually All the time
4. Considers the political climate as a factor for difference in perspective?  
Never/Rarely Once in a while Sometimes Usually All the time
5. Considers the power imbalances as factors for difference in perspective?  
Never/Rarely Once in a while Sometimes Usually All the time
6. Considers the situational context as a factor for the difference in perspective?  
Never/Rarely Once in a while Sometimes Usually All the time
7. Attempts to be open to considering the differing perspective?  
Never/Rarely Once in a while Sometimes Usually All the time
8. Self-reflects and critiques themselves afterward?  
Never/Rarely Once in a while Sometimes Usually All the time
9. Attempts to be flexible?  
Never/Rarely Once in a while Sometimes Usually All the time
10. Is aware of their own biases?  
Never/Rarely Once in a while Sometimes Usually All the time
11. Attempts to shed their ego?  
Never/Rarely Once in a while Sometimes Usually All the time
12. Seeks to establish respect?  
Never/Rarely Once in a while Sometimes Usually All the time
13. Seeks to provide optimal care?  
Never/Rarely Once in a while Sometimes Usually All the time

14. Focused on the other person in addition to themselves?  
Never/Rarely Once in a while Sometimes Usually All the time
15. Seeks to empower others?  
Never/Rarely Once in a while Sometimes Usually All the time
16. Works towards a mutual benefit?  
Never/Rarely Once in a while Sometimes Usually All the time
17. Seeks to develop a partnership?  
Never/Rarely Once in a while Sometimes Usually All the time
18. Strives for a supportive interaction?  
Never/Rarely Once in a while Sometimes Usually All the time
19. Is a lifelong learner?  
Never/Rarely Once in a while Sometimes Usually All the time

## Appendix E: Michigan Organizational Assessment Questionnaire Intent to Leave

## Instrument Permission for Use



Appendix F: Michigan Organizational Assessment Questionnaire Intent to Leave  
Instrument

This section of the survey asks you to consider 1 question and 2 statements relating to your intention to leave your organization. Read each statement carefully and then choose a number from 1 to 7 based on the rating scale below that best applies to you and your feelings.

Rating Scales - For question 1, choose a number from the choices below that best applies to the question: 1 = Not At All Likely; 3 = Somewhat Likely; 5 = Quite Likely; 7 = Extremely Likely

For questions 2 and 3, choose a number that best applies to each of the 2 statements: 1= Strongly Disagree; 2 = Disagree; 3 = Slightly Disagree; 4 = Neither Agree nor Disagree; 5 = Slightly Agree; 6 = Agree; 7 = Strongly Agree

Please answer the following questions:

1. How likely is that you will actively look for a new job in the next year? 1=Not at all likely 3=Somewhat likely 5=Quite likely 7=Extremely likely
2. I often think about quitting. 1= Strongly Disagree 2= Disagree 3= Slightly Disagree 4= Neither Agree nor Disagree 5= Slightly Agree 6= Agree 7= Strongly Agree
3. I will probably look for a new job next year. 1= Strongly Disagree 2= Disagree 3= Slightly Disagree 4= Neither Agree nor Disagree 5= Slightly Agree 6= Agree 7= Strongly Agree

## Appendix G: Survey Questions Demographic Information

Questions 1-5 will provide demographic background information. Please answer all items candidly and honestly, remembering your responses are anonymous and confidential.

1. At the time of this survey, how many years old are you?
2. What is your gender?
  - a. Female
  - b. Male
3. Which Midwest state(s) have you worked as a registered nurse in, in the past 36 months? Choose all that apply.
  - a. North Dakota
  - b. South Dakota
  - c. Nebraska
  - d. Kansas
  - e. Minnesota
  - f. Iowa
  - g. Missouri
  - h. Wisconsin
  - i. Illinois
  - j. Michigan
  - k. Indiana
  - l. Ohio
4. How long have you been a nurse?
  - a. Less than 1 year
  - b. 1-2 years
  - c. 3-4 years
  - d. 5-9 years
  - e. 10 -19 years
  - f. 20 or more years
5. About how long have you been in your current position?
  - a. Less than 1 year
  - b. 1-2 years
  - c. 3-4 years
  - d. 5-9 years
  - e. 10 -19 years
  - f. 20 or more years