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Understanding COVID-19 Vaccination Hesitance Among Registered Nurses

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Abstract

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by

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MSN & MHA, University of Phoenix, 2013

BSN, SUNY Downstate, 2007

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

The development of the COVID-19 vaccine, while hailed as a groundbreaking scientific achievement, also brought to light a discernible hesitance from registered nurses (RNs) regarding the vaccination. While extensive research has delved into the broader phenomenon of vaccination hesitancy, there remains a notable gap in comprehensively examining the specific lived experiences of RNs in relation to this hesitancy. Thus, the purpose of this study was to explore the lived experiences of RNs contributing to COVID-19 vaccine hesitance within the context of the theory of reasoned action (TRA) and Roy's adaptation model. TRA helped to guide this study in identifying the lived experience and meaning associated with COVID-19 vaccination hesitance among RNs. RAM complemented TRA in that the framework acknowledges that RNs are not separate from their environment and that this interrelatedness is reflected in attitude, experience, and intent toward a behavior. Through semistructured interviews, 10 participants were engaged in dialogue that resulted in the emergence of four major themes: (a) loss of autonomy, (b) concerns with safety, (c) confusion related to practices, and (d) varying forms of isolation. The insights from this research offer a foundation for positive social change and a call to action for healthcare leaders to understand better the complexities surrounding vaccine hesitancy, the unconscious biases exhibited, and how this impacts vaccine acceptance and contributes to maladaptive behaviors. Future research should include exploring specific demographics and professional factors. Additional investigation can explore a study of similar context but with a quantitative design to further enrich future discussions.

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Dedication

I dedicate this study to my mother and late father as a testimony of what unwavering support yields. As a child of immigrants and now a doctoral graduate, I am the American dream!

Acknowledgments

I would like to thank my husband and children for believing in me and supporting my dream. Thank you, Dr. Brown, for your relentless support, guidance, and motivational pep talks throughout this journey. Thank you, Dr. Losty, for always extending yourself and going above and beyond to ensure clarity and success. I could not ask for a better village.

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Chapter 1: Introduction to the Study

Introduction

On January 10, 2020, the World Health Organization (WHO) announced the identification of a new strain of coronavirus that leads to a disease known as *Coronavirus Disease 2019* (COVID-19; Gabet et al., 2023). The emergence of COVID-19 led to a global pandemic within months, spreading to over 189 countries and territories (Sheposh, 2023). The COVID-19 pandemic brought unprecedented challenges to the world at large but, more specifically, to the public health domain. In response to the novel virus, the scientific community raced to develop and distribute a vaccine as a primary defense mechanism. While the vaccine received emergency use authorization (EUA) and later full approval, healthcare organizations around the world prioritized their frontline workers, including registered nurses, for vaccination (Vuong et al., 2022).

Many nurses welcomed the vaccine as a crucial tool in the fight against COVID-19; however, there was an observed hesitance among a number of nurses (Vuong et al., 2022). This hesitance, particularly among nurses working in the frontline of patient care, presents a complex issue that warrants exploration. Thus, the purpose of this study was to explore the lived experiences of registered nurses related to COVID-19 vaccine hesitance. The insight gained could aid in developing strategies to address concerns and enhance vaccine acceptance among registered nurses. The results of this study can effect positive social change as the findings may provide additional context to vaccination hesitance among nurses. Moreover, the findings of this study will contribute to ethical and public health implications related to pandemics such as COVID-19.

Background

The development of the COVID-19 vaccine, while hailed as a groundbreaking scientific achievement, also brought to light concerns and apprehensions among registered nurses given the speed at which the vaccine reached the general population (Bratu, 2021). Many in the medical community found themselves in turmoil, torn between the urgency to combat the pandemic, skepticism in the efficacy and safety of the vaccine, and the role of medical professionals as shepherds of public health initiatives, such as vaccines (Peterson et al., 2022). The impetus for this inquiry was catalyzed by the transformative societal shifts resulting from the advent of what scholars have termed the "new normal" (Vyas, 2022, p. 155).

Vaccination hesitancy is identified as one of the top 10 global health threats (de Alburquerque Veloso Machado, 2021). "Vaccine hesitancy is defined as the delay in acceptance, or refusal of vaccines despite the availability of vaccine services" (O'Malley, 2021, p. 11). At the onset of the pandemic, according to data reported by WHO (2023), the United States rank in the top three regions worldwide for weekly confirmed cases of COVID-19. This assessment provided the context and need for vaccine acceptance but, more importantly, for an in-depth understanding of COVID-19 vaccine hesitance (WHO, 2023). For example, at the onset of the pandemic, confirmed cases averaged over 300,000 a week, as COVID-19 continued to overawe American society (Wong et al., 2023). The volume of COVID-19 cases is included in this discussion to help illustrate the intensity of the pandemic and the disassociation with COVID-19 hesitance.

In order to address vaccine hesitancy, many states implemented specific strategies. For example, the state of New York enforced a vaccine mandate in September 2021, which allotted no exemptions under any circumstance for all healthcare workers (Centers for Disease Control and Prevention [CDC], 2021). For 2 years, healthcare workers were required to accept the COVID-19 vaccine as a condition of employment. Consistent with the adaptation and accommodation that local lawmakers and health facilities had to implement in response to the COVID-19 vaccine mandate, registered nurses were faced with the decision of whether their hesitance was a justification for lack of gainful employment. As a result of the COVID-19 vaccine mandate, healthcare facilities throughout the state began reporting employee vacancy rates as high as 19% with nurses accounting for 25% of vacancies creating staffing shortages in some areas (Kaufman, 2021). The imposed mandate was later repealed on October 4, 2023 (New York State Department of Health, 2023).

Considering the imposed mandate and the number of resulting nurse vacancies, the attributes of vaccination hesitance appear to lie somewhere between self-determination and bodily integrity, with no definitive understanding of the individual hesitance experienced by registered nurses (Choi & Gerstein, 2020; Dayilar et al., 2022; Oerther, 2021). Bratu (2021) posited that a lack of confidence in the medical establishment, apprehensions, insufficient data, and anxiety are common themes among those who may be hesitant to accept the vaccine. Vuong et al. (2022) suggested that the resulting behavior reflects reluctance or hesitance, but there is little evidence regarding the lived experiences related to the perceptions and attitudes of registered nurses.

Although the phenomenon of vaccination hesitance has been investigated in a broader context, there is limited evidence that explores registered nurses' lived experiences related to COVID-19 vaccine hesitance.

As suggested, the existing body of literature is limited in understanding the phenomenon of vaccine hesitancy among registered nurses. As a result, there is a need for additional research to further understand experiences surrounding vaccination hesitancy among nurses. Conducting further research on this topic can assist public health officials in designing targeted strategies and programs that may offer support to mitigate potential knowledge gaps and address the perceptual obstacles regarding vaccination uptake.

Problem Statement

As COVID-19 impacted healthcare systems, economies, and the fabric of daily human interaction, the contours of everyday life underwent a marked redefinition. A salient challenge emerging from this pandemic landscape was the discernible hesitance to vaccinate against the coronavirus (Hintermayer & Moszczynski, 2021). As societies grappled with delineating the parameters of this "new normal," the onus increasingly fell on individual vaccination compliance as a cornerstone of this reimagined societal construct (Vyas, 2022, p. 155). While extensive research has delved into the broader phenomenon of vaccination hesitancy, there remains a notable gap in comprehensively examining the specific lived experiences of registered nurses in relation to this hesitancy.

The menace of vaccination hesitance compromises the success of vaccination efforts quantitatively and qualitatively (Ahuja et al., 2021). From a measurable stance, the number of vaccinated individuals necessary to mitigate complications to infectious

diseases is at risk (Jose et al., 2022; Peterson et al., 2022). In the context of lived experiences, vaccination hesitance contributes to physiological and psychosocial complications related to a delay in achieving success in preventing morbidity and mortality from infectious diseases (Jose et al., 2022; Peterson et al., 2022). Vaccination hesitance threatens the stability of global health and the global economy (Frank et al., 2022). Thus, to effectively mitigate and prevent disease, it is essential to understand the lived experiences that precede vaccination hesitance.

O'Malley (2020) expanded on a nurse's role as a messenger, facilitator of acceptance, and the ethical component of accepting or refusing a vaccine. Given this statement, it is of interest to explore and understand vaccination hesitance among registered nurses. The research problem addressed through this study was the exploration of the lived experiences of registered nurses as it relates to the COVID-19 vaccine hesitance.

Purpose of the Study

The purpose of this qualitative study was to explore the lived experiences of registered nurses as it relates to the COVID-19 vaccine hesitance. The focus was not on the final action of receiving the vaccine but on the journey and deliberations that led to it. By comprehensively understanding registered nurses' journey from hesitancy to eventual vaccination, this study aims to gather insights that can inform the creation of targeted strategies to address and potentially mitigate similar hesitancies in the future. The overarching goal was to enhance disease prevention efforts through more effective vaccination campaigns that can mitigate hesitance.

Research Question

A good research question aligns the problem statement with the purpose of the study to present the direction the study will venture (Producer, 2017). The research question ties in with the relationship between the goal and conceptual framework, thus influencing the method and validity of the study (Maxwell, 2013). The research question posed for this study was: What are the lived experiences of registered nurses hesitant to receive the COVID-19 vaccine? The question posed acknowledges the problem faced, vaccination hesitancy, and the purpose of the investigation, the reluctance observed amid a pandemic.

Conceptual Framework of the Study

The concepts that grounded this study included a composite of the theory of reasoned action (TRA) and Roy's adaptation model (RAM). The TRA is based in behavioral concepts (Barman & Barman, 2016; Fishbein & Ajzen, 1977, 2005). Central to the assertion of TRA is that the intent to adopt, or in this context accept, is an immediate predictor of behavior (Ackerman et al., 2021). The constructs of TRA include normative beliefs and the motivation that precedes the intention to perform a behavior and emphasizes the importance of beliefs in predicting behavior (Akther & Nur, 2022). The TRA is a psychological theory that bridges the gap between belief and behavior. This bridge must be included in understanding the lived experiences of registered nurses hesitant to vaccinate. TRA helped guide this study in identifying the lived experiences and meaning associated with COVID-19 vaccination hesitance among registered nurses.

RAM complements TRA in that this framework acknowledges that a nurse is not separate from their environment and that this interrelatedness reflects in attitude, experience, and intent toward a behavior (Jennings, 2017). Roy developed this model in 1976 with the conviction and assumption that there is a philosophical, scientific, and cultural ascendancy to the individual as an adaptive system (Jennings, 2017). In the context of COVID-19 vaccination hesitance and the purview of this study, nurses' adaptation to the vaccine mandate aligns with the general principles of RAM. Under the auspices of Roy's model, the vaccination mandate is an environmental component that sways an individual's intent. Acceptance of the COVID-19 vaccine is the individual response that helps sustain the adaptive system despite hesitance (Vuong et al., 2022). While the study was focused on the lived experience of registered nurses with COVID-19 vaccination hesitance, there was an opportunity to categorize the themes revealed during participant interviews guided by RAM concepts. Thus, constructs of the TRA and RAM assisted in guiding the development of the study, informing the interview questions, and supporting the analysis process.

Nature of the Study

To address the research question in this qualitative study, the specific research design included the principles of interpretive phenomenology. Interpretive phenomenology is used to explore how participants rationalize their personal and social worlds (Oerther, 2021). According to Patton (2015), the phenomenological approach is an informal interactive process designed to facilitate sharing of lived experiences. The

most appropriate qualitative approach to develop my investigation of vaccine hesitance was phenomenology—more specifically, interpretive phenomenology.

Phenomenology defines how an individual is guided in their lived experience; hermeneutics defines how an individual interprets the context of the experience (Sloan & Bowe, 2014). The overall focus of phenomenology is to understand the meaning of the experience and derive a context for the phenomenon through interpretive data analysis. Gillespie et al. (2018) further added that this approach facilitates gaining new understandings by exploring an individuals' subjectivity. Understanding the lived experience contributing to COVID-19 vaccination hesitance among registered nurses is the basis of investigating the phenomenon of hesitance.

Definitions

COVID-19: A respiratory disease caused by SARS-CoV-2, a coronavirus discovered in 2019, spread primarily through respiratory droplets (CDC, 2021).

First wave: New York City had its first confirmed case of COVID-19 on February 29, 2020 (Jones et al., 2022). The first wave is said to have lasted from March 2020 through July 2020 (Hoogenboom et al., 2021).

Moral distress: Nurses' frustration due to being unable to take a stance on the vaccine mandate due to personal conviction because of organizational and governmental constraints (Callis, 2020).

New normal: The result of measures implemented to "flatten the curve": social distancing, working from home, travel bans, mask requirements, and other restrictions implemented during the pandemic (Frank et al., 2022; Kenny, 2022; Vyas, 2022, p. 155).

Pandemic: The worldwide spread of a disease (Gupta et al., 2021).

Prosocial behaviors: Voluntary behavior intended to help others, contribute to a cause, and promote belongingness (Ackermann et al., 2021).

Vaccination hesitance: WHO defined vaccination hesitance as "the reluctance or refusal to vaccinate despite the availability of vaccines" (O'Malley, 2020).

Assumptions

The primary assumption for this study was that nurses who were hesitant to receive the COVID-19 vaccine would be willing to participate in this study. Second, it was assumed that participants who agreed to be interviewed would be candid, provide honest answers, and feel comfortable participating in the study. Third, it was assumed that the lived experiences shared by participants on their hesitance with the COVID-19 vaccine would contribute new knowledge to the understanding of experiences of vaccination hesitance among registered nurses. Lastly, it was assumed that I, as the researcher, WOULD remain objective during participant interviews and the interpretation of data given my personal experience with COVID-19 vaccine hesitance (Theofanidis, 2018).

Scope and Delimitations

The scope of this study includes the recruitment of registered nurses who worked in New York during the first wave of the COVID-19 pandemic (March 2020 to July 2020). This population piques interest owing to the profound impact experienced by registered nurses who served at the frontline in the epicenter during the onset of the first wave of the pandemic. The intensity was characterized by the volume of death, the

shortage of supplies and staff, and the physical and emotional exhaustion experienced by the registered nurses providing bedside care (Di Gennaro et al., 2021; Gaspar da Rocha et al., 2021; Maraqa et al., 2021).

The TRA and RAM provided the necessary structure and framework to explore vaccination hesitance. The constructs of TRA and RAM helped guide the organization and presentation of this study (see Patton, 2015). Criteria-based sampling was used to ensure all participants met the inclusion criteria of: (a) being age 18 and over, (b) having full mental capacity for decision to accept or decline study participation, (c) being a licensed registered nurse employed in a health care setting who does not identify as an anti-vaxer, and (d) have received the COVID-19 vaccine. Exclusion criteria were as follow: Any nurse who has not received any form of vaccination, is not a licensed registered nurse, does not work in a health care setting, has not provided health services to COVID-19-positive patients, and did not work during the first wave of the pandemic.

Limitations

Despite best attempts, there are limitations to every study. One of the limitations of this study was that the sample was confined to nurses working in New York. While this provides detailed insights into the experiences of nurses in this specific region, it also raises questions about the broader applicability of the findings. To address this, it is vital to position the results as contextually specific and advocate for comparable research in different geographical terrains to gain a more holistic perspective. Another related concern arises from potential sampling bias, especially given the study's reliance on

purposive sampling. This method, while valuable for targeting specific experiences, might inadvertently exclude certain viewpoints or overrepresent others.

My personal experience as a COVID-19 vaccine-hesitant nurse mandated to take the vaccine adds a layer of depth and personal understanding to the research. However, it also presents a potential bias. Being transparent about this personal context from the outset ensures that readers and stakeholders can interpret the findings with this in mind, further underscoring the genuine and multifaceted nature of the issue at hand. One approach to mitigating biases is through reflexivity. Reflexivity facilitates critical self-analysis of one's biases and is central to constructing knowledge (Peddle, 2021).

Further, the study's credibility and conformity depend on the study's transparency and evidence of reflexivity. Peddle (2021) recommended using a reflexive questionnaire that follows the constructs of Peshkin's I's to be used throughout the study to enhance journaling, a form of bracketing. It is essential to have that continuous internal dialogue that captures the subjective I's. This dialogue is a vital specificity because a researcher is the subject and object of the research in qualitative research (Queirós et al., 2017). An additional strategy conducive to a well-developed study is a self-evaluation of the strengths and weaknesses of the researcher, which will help guide a necessary discussion of additional resources needed. Additional resources can include a research assistant and time management techniques that support a balance of school, work, life, and most importantly, alignment throughout the study.

Clarity and transparency in the analysis process is a limitation that influences s study's validity. The constant comparative method (CCM; Forero et al., 2018; Gupta et

al., 2021; Leong et al., 2010) will be used to support the systematization of the analysis process. As such, there is a need for transparency and clarity on the subject of the comparison, the phase of research the comparison is taking place, the reason(s) for the comparison, and clarity on the results of the comparison (Boeije, 2002). Meticulous notetaking and recordkeeping of the results of each round of comparison, findings, and justification for subsequent comparisons are key to fostering transparency in the analysis process.

Significance

In reviewing the literature concerning vaccination hesitance, as it pertains to COVID-19, there are many studies that present the overall behavior of COVID-19 hesitance in the general population (Ackermann et al., 2021; Bratu, 2021; Ciliberti et al., 2022; Conejero et al., 2023; Czubryt et al., 2020). There is ample literature that supports the role that trust, religion, social media, attitude, and the economy play in the decision to vaccinate; however, the connection, if any, to New York nurses' lived experiences of hesitance is limited. The findings of this study will add to the literature in understanding vaccination hesitance among registered nurses by focusing specifically on the lived experiences that influence the behavior of COVID-19 vaccination hesitance in registered nurses.

The hesitance toward vaccination among registered nurses holds significant implications. Given that nurses are among the most trusted professionals in healthcare, their apprehensions about a vaccine can inadvertently influence patients' perceptions (Khubchandani et al., 2022; Matta, 2023). Understanding reasons for a nurse's hesitancy

can pave the way for the development of strategies that may address the issues of vaccine hesitancy among the nursing profession and diminish the risks of exposure, transmission, and contamination among colleagues, families, and the broader community.

In addition to immediate health concerns, this study was conducted to help address essential ethical and public health dimensions. The potential for positive social change emerges from this exploration, with a broader aim being the enhancement of public health measures to address and counteract vaccine hesitancy at a societal level (Khubchandani et al., 2021; Martins Silva et al., 2023). The results of this study can effect positive social change in that the findings will provide additional context to vaccination hesitance among nurses, which will assist in developing strategies to address COVID-19 vaccine hesitance among nurses.

Summary

In Chapter 1, introductory information on COVID-19 vaccine hesitance among registered nurses was presented. The relevance and significance of this phenomenon was presented to set the tone for the themes identified in the literature reviewed in the next chapter. In Chapter 2, I will present literature review strategies and the literature used to describe and support the exploration of the phenomenon along with the conceptual framework and complementing theory used to develop and structure this investigation.

Chapter 2: Literature Review

Introduction

The purpose of this qualitative study was to explore the lived experiences of registered nurses as it relates to COVID-19 vaccine hesitance. The results of this study may effect positive social change in that the findings will provide additional context to vaccination hesitance among nurses. The research problem that this study addressed is the lacking understanding of the experience of registered nurses as it relates to COVID-19 vaccine hesitance. In the following sections, I will describe the literature search strategies used to locate evidence supporting this study. I will provide a description of the conceptual framework and complementing theory that serves as the guardrails for my study and the presentation of an exhaustive review of literature.

Literature Search Strategy

A comprehensive review of the literature was conducted to examine the experiences of people hesitant to receive the COVID-19 vaccine from a broad perspective with progression to specificity of registered nurses who were hesitant to receive the COVID-19 vaccine. The search dates were confined to a period of 2018 to 2023. The following library databases and search engines were used for the literature search: Thoreau, CINAHL, PubMed, EBSCO Host, MEDLINE, Ovid Nursing Journals, ProQuest Health and Medical Collection, ProQuest Dissertations, and These Global, and ProQuest Nursing and Allied Source. A combination of search terms was used to query these databases for relevant literature that could establish the prevalence of COVID-19 hesitance and the gap in the portrayal of the experience of COVID-19 hesitance in the

registered nurse. The following key search terms were used: *vaccination hesitant, COVID vaccine-hesitant, registered nurses, lived experience, America, American, vaccine, COVID-19, hesitant, refusal, vaccination, coronavirus, qualitative, phenomenology, mandate, religion, social media,* and *economy* with a specification of peer-reviewed scholarly articles. Out of thousands of related articles, 109 articles were found to be appropriate in the exploration of this phenomenon, and of this number, 92 articles were used to develop this study. While there are thousands of articles available covering multiple facets of the COVID-19 pandemic, there is limited literature exploring the experience of COVID-19 vaccine hesitance in registered nurses in New York state. This limitation reiterates the need to explore this phenomenon further. In this chapter, I will outline the current relevant literature on this phenomenon and call out the gaps identified regarding COVID-19 vaccine hesitance in registered nurses.

Conceptual Framework

The conceptual framework for this study included the TRA and RAM. The concepts of RAM complement TRA in that the framework acknowledges that a nurse is not separate from their environment and that this interrelatedness can be reflected in attitude, experience, and intent toward a behavior (Barman & Barman, 2016; Fishbein & Ajzen, 1977, 2005; Jennings, 2017). Figure 1 illustrates the interrelatedness of this conceptual framework.

Figure 1

Conceptual Framework: The Response

TRA was developed by Martin Fishbein and Icek Ajzen in 1967 (Fishbein & Ajzen, 1977). Central to the assertion of TRA is that the intent to adopt or, in this context, "accept" is an immediate predictor of behavior (Ackerman et al., 2021, p. 3). The constructs of TRA include normative beliefs and the motivation that precedes the intention to perform a behavior and emphasizes the importance of beliefs in predicting behavior (Akther & Nur, 2022). The TRA is a psychological theory that bridges the gap between belief and behavior. The significance of this bridge must be reflected in the investigation and understanding of the lived experiences of registered nurses hesitant to vaccinate. TRA posits that attitude and subjective norms influence behavioral intention, which influences the exhibited behavior of hesitance. The tenets of this theory support the relationship between attitude, experiences, and behaviors and help guide this study in identifying the experiences and meaning associated with COVID-19 vaccination

hesitance among registered nurses. Figure 1 shows the relatedness of TRA with regards to individual attitude, intent toward a behavior, and how the adaptive response according to RAM cultivated by the environment, personal beliefs, external stressors, and experiences contribute to a behavior of hesitance.

Ackermann et al. (2021) and Xiao and Wong (2020) used the TRA to explore prosocial behaviors similar to COVID-19 vaccine hesitance. Respectively, the authors explored the role of attitude and perception in help-seeking/health-seeking behaviors and the individual inclination to mask wearing (Ackermann et al., 2021; Xiao & Wong, 2020). Evidence shows that TRA and the theory of planned behavior account for up to 60% of the variance in intentions and up to 40% in behaviors spanning multiple health issues (Xiao & Wong, 2020). In the study by Ackermann et al. (2021), the constructs of TRA were used to correlate perception and attitude directly influenced intent to mask. The findings of this study demonstrate the relevance of TRA as a framework in the investigation of prosocial behaviors such as mask wearing, social distancing, and vaccine acceptance (Ackermann et al., 2021). Similarly, in my study, I sought to explore how perception and attitude drive COVID-19 vaccination hesitance in registered nurses.

In the context of COVID-19 vaccination hesitance and the purview of this study, a nurse's adaptation to the vaccine mandate aligns with the general principles of RAM: humanism, veritivity, and cosmic unity (AlHarbi, 2022; Jennings, 2017). Under the auspices of Roy's model, the vaccination mandate is an environmental component that sways an individual's intent. Humanism assumes that individuals behave purposefully and with a goal of relationship sustenance, and veritivity assumes that action supports

purposefulness and the greater good. Cosmic unity posits that there is a shared commonality that drives an individual's experience (AlHarbi, 2022). Acceptance of the COVID-19 vaccine is an individual response that helps sustain the adaptive system despite hesitance.

RAM integrates the human response with environmental stimuli (Callis, 2020). In reviewing literature that explores or addresses COVID-19 vaccination hesitance, there is an integrated relatedness between the individual, their response and perception to the COVID-19 vaccine, and the affected influence on the larger community of ecosystems. The constant changes in an individual's environment can drive a person to seek some form of adaptation. The literature review highlights the relevance and prevalence of the COVID-19 pandemic and the need to understand the adapted experiences of registered nurses. While this study was focused on the experiences of registered nurses who were hesitant to receive the COVID-19 vaccine, there was an opportunity to categorize the themes revealed during participant interviews guided by the concepts of RAM. The literature reviewed in support of this conceptual framework provided support for the role that TRA has played in other investigations on the interplay of attitude and perception on behavior and, more importantly, how the environment according to Roy conditions an individual's attitude, perception, and response (Akther & Nur, 2022; AlHarbi, 2022; Callis, 2020).

Literature Review Related to Key Variables and Concepts

COVID-19 Pandemic

The COVID-19 pandemic infected over 83 million people globally, reached over 200 countries, and resulted in over 1.8 million deaths since its recognition (Jose et al., 2022). As the world at large began to acknowledge the presence and menacing footprint of COVID-19, the effects of the pandemic were palpable in various sectors. The pandemic presented physical, financial, psychosocial, and psychological challenges that altered the activities of daily living (Anzai et al. 2022; Aw et al., 2022; Cascini et al., 2022; Gu et al., 2022; Jose et al., 2022; Kyne et al. 2022; Mak et al., 2022; Panchal et al., 2023; Peterson, 2020). The pandemic also brought to light the presence of vaccination hesitance among healthcare workers (Ecker & Kutalek, 2021; Gardner, 2022; Gu et al., 2022).

Implications of the Pandemic

Healthcare systems worldwide experienced constraints ranging from physical resources, personnel, emotional and psychological trauma, and the ethical dilemmas associated with prioritization of care. During the height of the pandemic, WHO (2023) estimated that from January 2020 to May 2021, 80,000 to 180,000 healthcare workers died from COVID-19. Frontline staff were forced to reuse single-use personal protective equipment due to the influx of patients on isolation for COVID-19 and the limited availability of masks, particularly N-95 masks (Czubryt et al., 2020).

Several studies presented information about the fear, anxiety, and stress experienced by healthcare workers in response to the growing demands to care for

patients during the pandemic (Chegini et al., 2021; Gunawan et al., 2021; Lee & Lee, 2020). Nurses providing patient care during the height of the pandemic reported sentiments of anxiety, helplessness, loneliness, guilt, fear, and frustration among the many emotions experienced and observed (Aw et al., 2022; Cascini et al., 2022; Gu et al., 2022; Jose et al., 2022). Healthcare workers also experienced psychosocial concerns with the volume of sick COVID-19 patients, the number of casualties, survivor guilt, and the fear of infecting their loved ones after caring for COVID-19 patients (Chau et al. (2021).

Impact on Nurses

Nurses reported feeling alienated when they would return home from caring for COVID-19 patients, in large part due to fear of exposure and transmission to their loved ones (Chau et al., 2021; Conejero et al., 2023; Gray et al., 2021). Other nurses reported feeling shunned in their respective communities for the same fear of exposure and community transmission (Chau et al., 2021; Conejero et al., 2023). Posttraumatic stress disorder, anxiety, depression, and burnout were among the common experiences identified in nurses caring for patients amid the pandemic (Conejero et al., 2023). Despite these anecdotal accounts found in the literature, a comprehensive exploration of the lived experiences of nurses as it relates to COVID-19 vaccine hesitance is necessary.

Public Health

Due to the novelty of the COVID-19 virus, public health leaders were challenged with developing measures that were appropriate in reducing the spread of the virus, effective in scope and premise, cost effective to sustain, and practical in compliance (Anzai et al., 2022; Federal Emergency Management Assistance, 2023). The public

health response to the COVID-19 pandemic required a drastic shift in culture (Anzai et al., 2022). Many officials implemented *nonpharmacological interventions* (NPIs), which consisted of physical distancing, wearing masks, and maintaining personal hygiene (Kyne et al., 2022). While NPIs helped foster a physical sense of disease containment, they did not address other key components of public health such as the mental health concerns that arose from social distancing and sheltering in place.

Fear of infection became the primary driver for social isolation (Ayub et al., 2023; Bratu, 2021; Lin et al., 2022). Families with elderly members were hesitant for fear of transmission. Students and nonessential personnel were provided remote platforms to maintain learning and working while sheltering in place. The secondary effect of sheltering in place was isolation, depression, and in some cases, suicide (Anzai et al. 2022). During the pandemic, 61% of Americans over the age of 18 reported feeling lonely, and 70% of Americans over the age of 70 reported feeling depressed from not being able to attend community affairs and church activities (Kyne et al., 2022). In a study by Harvard University of 224 children ranging from ages 7 to 15, two thirds of participants reported feeling anxious and depressed by all the pandemic-related social changes (Peterson, 2020).

A number of studies highlighted strong associations between psychological behaviors like social distancing with anxiety and depression during the COVID-19 pandemic (Mak et al., 2022; Panchal et al., 2023). The shift from in person settings to virtual platforms resulted in maladaptive behaviors in children and adults alike (Gabet et al., 2023; Jones et al., 2022; Kenny, 2022; Lin et al., 2022; Mak et al., 2022). An

additional public health concern arose when nurses were presenting as part of the group hesitant to receiving the COVID-19 vaccine. While vaccine hesitance is a public health concern in general, nurses who experience COVID-19 hesitance were prioritized and publicized due to their job-related risks as frontline workers.

Vaccine Development

As society began to transition from the lows of the first wave to the peaks of the second wave, the availability of a vaccine and the hesitation to vaccinate became an additional hurdle for healthcare systems and public health communities (Gaspar da Rocha, 2021; Rozek et al., 2021; Perrone et al., 2022). The vaccine for COVID-19 received EUA, on December 18, 2020 (Cunningham & Rhinehart, 2021). Despite the FDA approval, there was great skepticism about the efficacy of an expedited vaccine development.

The literature reviewed on COVID-19 vaccine hesitance shared great skepticism about the expedited process by which vaccines were tested and approved for public consumption (Ahamed et al., 2022; Peterson et al., 2022; Xiao & Wong, 2020). The following timeline provides a glimpse into what is meant by expedited: In February 2020, WHO convened to discuss the coronavirus and research development for vaccines; in April 2020, WHO committed to the accelerated development of a COVID-19 vaccine; in October 2020, manufacturers were encouraged to apply for EUA on December 18, 2020, the FDA issued a decision on a EUA for Moderna vaccine, by mid-December, first doses of COVID-19 vaccines were made available for public consumption; on August 23, 2021, the FDA granted full approval for the Pfizer vaccine (Cunningham & Rinehart, 2021).

In the span of 11 months, the COVID-19 vaccine was tested, studied, and approved for public consumption in the fight against the novel coronavirus. The objections and controversy to this timeline are that the routine testing and approval of vaccines typically range in years consisting of clinical trials, assessment of risks and benefits, continuous monitoring after approval, and strict adherence to manufacturing guidelines (Ciliberti, 2022). Trust in the safety and efficacy of the vaccine and vaccine approval processes was a theme identified as a recurring reason and concern for hesitance (Hintermayer & Moszczynski, 2021; Machado et al., 2021; Perrone et al., 2022).

Vaccine Hesitancy Among Registered Nurses

In 2020, the nurses' refusal rate was 23.4%, with many reviews citing that nurses have one of the highest hesitancy rates for the COVID-19 vaccine (Gardner, 2022; Jose et al., 2022; Khubchandani et al., 2022). The designation of healthcare workers, including nurses, as priority groups to carry out COVID-19 vaccination despite individual preference, personal conviction, and traumatic experiences related to providing care and contracting the virus may have contributed to the resistance and experience of COVID-19 vaccine hesitance (Khubchandani et al., 2022).

In a survey of 12,939 nurses conducted by the American Nurses Foundation in October 2020, 84% of respondents had concerns with how quickly the vaccine was developed and that not enough information was known about the vaccines; safety, side effects, and administration, 36% of nurses reported they would not vaccinate against COVID-19 if an employer does not require it, 44% reported not feeling comfortable having conversations with patients about the COVID-19 vaccine, and 37% report not

feeling confident that the COVID-19 vaccine is safe and effective (American Nurses Foundation, 2020). The findings of this survey support the inclusion of constraint, convenience, confidence, complacency, and communication when exploring the experience of hesitance as it relates to the COVID-19 vaccine and registered nurses.

To date, the experience of the hesitant registered nurse with the COVID-19 vaccine is not well understood. Criss et al. (2021) conducted a study that correlated vaccine hesitance with the influence of social media and, more specifically, the presidential election, racial tension, and social injustice. A cross-sectional study conducted in Israel found that all the groups studied had a strong resistance to the COVID vaccine specifically (Shacham, 2021). There are ample studies that report the influences for the public at large in regard to vaccine hesitance and more specifically COVID-19 vaccine hesitance. There is a need to understand the context of the experiences contributing to COVID vaccine hesitance in registered nurses.

Organizational Challenges

The healthcare system and healthcare workers felt the challenging effects of the COVID pandemic firsthand (Jose et al., 2022). Their exposure to patients that were gravely ill and limited ability to leverage needed resources such as mask, staffing, challenging throughput set the stage for the seriousness of their exposure and it also allows us to consider given these conditions, what is their experience regarding COVID-19 hesitance. The COVID-19 pandemic threatened healthcare communities at large and gave light to the lack of preparedness of healthcare systems and policies for the

adaptation demands of the pandemic and the impact on the human response (Gray et al., 2021).

Strategies Used to Address Hesitancy

The general implications of the pandemic enabled a shared onus between public health leaders, the government and the medical community in developing strategies that would aid in addressing this phenomenon of COVID-19 vaccine hesitancy. Efforts ranged from community activities led by community health leaders, educational videos, media-based approaches and literature dispelling myths about the safety and efficacy of the vaccine (Martins et al., 2022; Singh et al., 2022). Nursing organizations and other professional organizations used their platforms to encourage COVID-19 vaccine acceptance by dispelling myths concerning safety and efficacy of the expedited vaccine (Jean, 2022).

One notable strategy implemented in response to COVID-19 vaccine hesitance among health-care workers but especially nurses in particular was the COVID-19 vaccine mandate. New York state enforced a vaccine mandate in September 2021, which allotted no exemptions under any circumstance (CDC, 2021). Nursing organizations representing more than 4 million registered nurses issued joint statements supporting a COVID-19 vaccine mandate for healthcare workers citing healthcare workers' ethical and moral obligation to the profession, communities served, and, lastly, to themselves as the logic for a mandate (Jean, 2022). Despite this endorsement, nurses continued to verbalize concerns with the safety and efficacy of an expedited vaccine (Vuong et al., 2022).

In a national study exploring attitudes and perceptions on the mandate, support was higher among respondents who were vaccine acceptors, had positive views about COVID-19 vaccines, believed in COVID-19 preventive strategies, perceived COVID-19 as severe, were liberal, resided in the Northeast, were non-White, and had incomes <$75,000 (Harris et al. 2022). In a sharp contrast the study also remarked that respondents who had ever received a flu vaccine were more likely to receive a COVID-19 vaccine (Harris et al. 2022). I can attest to this not being the case in every context. I was hesitant in receiving the COVID-19 vaccine, and there was no preceding hesitance to receiving the flu vaccine.

The mandate approach taken by lawmakers did not negate the hesitance experienced, it affirmed the desired outcome, vaccination compliance—willingly or forcefully. There is synergy in the sentiments felt about the mandate and the history of ill-famed studies like the Tuskegee airman study conducted by the U.S. Public Health Service and the CDC (2022), between 1932 and 1972. In both context, members were deprived of the free will to decide their own outcome based on autonomy and personal conviction. The mandate heightened sentiments of mistrust, fear in the safety and, efficacy of the vaccine, and benefit of a vaccine created and approved for emergency use within months of a pandemic (Di Gennaro et al., 2021; El-Sokkary et al., 2021; Gaspar da Rocha et al., 2021; Sarwar, 2022; Sundaresan, 2021).

Summary

The studies referenced in this literature review substantiate the pertinence in utilizing the TRA and RAM for the framework in investigating vaccine hesitancy among

registered nurses, and also the findings of previous studies that shed light on the intricate interplay between intentions, attitudes, behaviors, and norms surrounding vaccine hesitancy (Abedin et al., 2021; Khubchandani et al., 2022; Rozek et al., 2021; Youssef et al., 2023; Zhang et al., 2022). Collectively, these findings establish a foundation for further exploration and provide valuable insights into the factors influencing vaccine hesitancy within the registered nurse population. The next chapter will expound on the methods I will implement in this investigation.

Chapter 3: Research Method

Introduction

The primary purpose of this qualitative, interpretive, phenomenological study was to explore the lived experiences of registered nurses as it relates to COVID-19 vaccine hesitance. Focused on the experiences of registered nurses in New York state, in this research, I sought to explore the intricacies surrounding COVID-19 vaccination hesitance. The impact of COVID-19 vaccine hesitance extends far beyond the confines of healthcare settings and organizational outcomes. Instead, it permeates various spheres, encompassing financial, political, and ethical ramifications directly related to public health and disease prevention efforts (Candan et al., 2022). This chapter comprises several significant sections that include the relevance and appropriateness in the use of TRA as the conceptual framework complemented by RAM, the rationale in the selection of a qualitative design, the role of the researcher, methodology, issues of trustworthiness, and a summary of salient points.

Research Design and Rationale

The research question posed for this study was: What are the lived experiences of registered nurses who were hesitant to receive the COVID-19 vaccine? The question acknowledges the issue of COVID-19 vaccine hesitance among registered nurses and helped guide the study in investigating the phenomenon of hesitance observed amid the pandemic. A good research question aligns the problem statement with the purpose of the study to present the direction the study will venture (Producer, 2017). The research

question ties into the relationship between the goal and conceptual framework, thus influencing the method and validity of the study (Maxwell, 2013).

The research design selected for this study was qualitative interpretive phenomenological approach. Interpretive phenomenology entails using storytelling to elucidate the links and commonalities among stories (Reiners, 2012). It is preferred to have an interpretation of the experience rather than just a description of the reported experience. According to Patton (2015), the phenomenological approach is an informal interactive process designed to facilitate the sharing of lived experiences. The most appropriate qualitative approach to develop this investigation of vaccine hesitance is phenomenology—more specifically, interpretive phenomenology. Phenomenology defines how an individual is guided in their lived experience; hermeneutics defines how an individual interprets the context of the experience (Sloan & Bowe, 2014). The overall focus of phenomenology is to understand the meaning of an experience and derive a context for the phenomenon through interpretive data analysis.

A phenomenological lens was also applied to explore further registered nurses' experiences in COVID-19 vaccine hesitance. Phenomenology offers a different approach to developing knowledge. Phenomenology allows researchers to study how everyday practice is influenced by culture, tradition, and experiences, which aligns with and complements RAM (Jennings, 2017; Oerther, 2020; Reiners, 2012; Sloan & Bowe, 2014). Oerther (2020) introduced a fusion of horizons to depict the outcome goal of hermeneutic phenomenology to enrich and enlarge the initial understanding of a researcher as a result of engaging with a study participant. Interpretive profiles are

presented as a means to weave details of a study together to present a coherent story about each case that helps the researcher in understanding the phenomenon (Oerther, 2021; Reiners, 2012).

In investigating vaccination hesitance among registered nurses, it was essential to create interpretive profiles to capture participants' experiences in a standardized format that facilitated the discovery of themes and new knowledge. Oerther (2021) provided examples of structuring interpretive profiles to facilitate standardization and alignment in data collection. The findings of this study guide the structuring of key information to help guide my investigation and data collection of interview participants.

Using an interpretive phenomenological design and semistructured interviews allows study participants to share their lived experiences in their own words and perspectives. Careful exploration of the experiences related to COVID-19 vaccine hesitance will help to tailor effective vaccine promotion and disease prevention programs that benefit communities at large (Vuong et al., 2022). The central concepts of this study are the lived experiences and perceptions of registered nurses, the behavior of hesitance, and the relationship these concepts have on the decision to vaccinate against COVID-19. The constructs of TRA include normative beliefs and the motivation that precedes the intention to perform a behavior and emphasizes the importance of beliefs in predicting behavior (Seddig et al., 2022). The insights garnered from this investigation can be effectively applied when establishing tailored public health interventions (Khubchandani et al., 2021).

Research traditions define the appropriate methods to address a problem and how specific social science research should be conducted (Prosek & Gibson, 2021). The chosen research tradition for this study was phenomenology. The phenomenology tradition focuses on studying phenomena and their essence; its distinction from other research traditions is the focus on lived experiences (Ezati Rad et al., 2022). This research tradition assumes that humans are better placed to understand the world through experiences and conscious awareness (Roca, 2018). A phenomenological tradition is based on four tenets: description, phenomenological reduction, intentionality, and eidetic reduction.

In this study, the description encompasses gathering new data and information time after time in describing the lived experiences of vaccine-hesitant registered nurses. Phenomenological reduction is the self-imposed limitation that encompasses resisting the urge to hasten theoretical interpretations in explaining the lived experiences among COVID-19 vaccine hesitant registered nurses. In this study, I applied eidetic reduction through symbolic and imagination capabilities in the search for essence. More so, intentionality was focused on consciousness characterized by the transcendence of the TRA and RAM in implementing the study to achieve objective reality about lived experiences.

Other qualitative designs were considered for this investigation, but they did not fulfill the approach needed to align with the appropriate exploration style and data collection methods for this phenomenon. The case study approach is not ideal for investigating lived experiences as the focus does not facilitate the participant describing,

in their own words, descriptions of their personal experience. Through open discussions, participant and investigator can clarify the information shared and derive meaning from shared experiences.

Ethnographic qualitative research allows for examining specific groups of people and cultures of similar characteristics (Gray et al., 2021). The participant observation component of ethnography does not foster an opportunity to glean participants' lived experiences in depth, from the participants' perspectives, and with a focus on perception. The phenomenological tradition was deemed most appropriate for this study due to its inherent capability to facilitate narrative research involving interviews with registered nurses who expressed hesitance toward COVID-19 vaccination (Prosek & Gibson, 2021; Pula, 2021). This tradition facilitates the derivation of the shared meaning of participants' lived experiences by evaluating participants' perceptions and establishing central themes that can be used as a point of evaluation (Pula, 2021).

Additionally, the phenomenological tradition was the most appropriate because of its emphasis on identifying commonalities among study participants' experiences, their shared stories, and most importantly, their lived experiences. The phenomenon of interest for this study was COVID-19 vaccine hesitance, and the population of focus was registered nurses. The interpretive phenomenology tradition was chosen because of the alignment fostered between the research question, data collection methods, expected analysis, and the anticipated generalizations of the findings for studies using this tradition (Berghofer, 2020).

Role of the Researcher

The primary role of the researcher is to attempt to capture the thoughts and feelings of study participants accurately, while serving as the data collection instrument (Collins & Stockton, 2022). There is a contextual intersecting relationship between the researcher and the participant, which requires a great deal of reflexivity to ensure trustworthiness in the study's assertions (Dodgson, 2019). The researcher must always remain objective and receptive to peer feedback and remarks captured in journaling. Objectivity is crucial when there is a personal relationship to the phenomenon. The researcher has an ethical and moral responsibility to ensure a study is conducted with integrity, confidentiality, and respect. The ethical and moral responsibilities of the researcher must be reflected in the solicitation, data collection, data analysis, and housing of identifiable information. The role of the researcher is to observe and listen (Collins & Stockton, 2022). Active listening is essential when interviewing participants and recording responses. It is vital that a researcher listens objectively and observes for consistency in body language and other telling behaviors during an interview.

I ensured there were no personal relationships shared between the participants and me other than that they are nurses licensed in New York, that they share the experience of hesitance toward the COVID-19 vaccine, and possible commonality in clinical experiences (see Alhazmi & Kaufmann, 2022). As the study facilitator, I have an implied supervisory role in communicating with participants, including obtaining consent, coordinating and facilitating interviews, and guiding participants in the interview process but not the interview experience itself. The possibility of researcher bias is inherent when

conducting interviews on a topic that resonates with a researcher (Neubauer et al., 2019). Researcher bias in this context emanates from the ideas and knowledge about the study, hopes for the study, themes gained from literature reviews, and personal experiences with the phenomenon. Confirmation bias was managed by practicing phenomenological reduction. Phenomenological reduction is characterized by resisting the urge to quickly make theoretical interpretations in explaining the lived experiences shared by participants. Another approach used to manage researcher bias is practicing mindfulness meditation, which will help increase awareness about thoughts drawn from previous knowledge.

Researcher reflexivity is of great concern as it pertains to vaccination hesitance and the development of this study. The concern is primarily due to my own hesitance in receiving the COVID-19 vaccine. Reflexivity facilitates critical self-analysis of one's biases and is central to constructing knowledge (Neubauer et al., 2019). The credibility and conformity of a study relies heavily on the study's transparency and evidence of reflexivity. A reflexive questionnaire was used throughout the study to enhance journaling and bracketing (see Peddle, 2021). It is essential to have a continuous internal dialogue that captures the subjective I's. This dialogue is a vital specificity because a researcher is the subject and object of the research in qualitative research (Queirós et al., 2017).

Methodology

This qualitative phenomenological research study is structured on a mélange of the principles of TRA and RAM. This complementary mixture of tenets sets the tone and

framework for the procedures, processes, and protocols used to investigate, design, implement, and evaluate the investigation of the lived experiences of registered nurses who were hesitant to vaccinate against COVID-19. This methodology section identifies the logic behind participant selection, including population identification, sampling strategy, and the instrumentation for data collection. Further discussion will include the data analysis plan and the procedures and tools for analyzing the data collected through the semi-structured interviews.

Participant Selection Logic

All qualified participants will be registered nurses and have experienced some form of hesitance in receiving the COVID-19 vaccine. This criterion is an essential aspect as it supports the participant's experience in COVID-19 vaccination hesitance. Participants may or may not share similar experiences and their perceptions may vary in characteristics (Moser & Korstijens, 2018). Participators will be solicited via various nursing forums and professional associations and from different healthcare facilities across New York, using purposive sampling.

Criterion purposive sampling is a non-probability method where the researcher intentionally selects participants based on specific criteria; characteristics, knowledge, experiences, willingness, availability, access to resources to facilitate virtual interviews, meeting the selection criteria, and their ability to elucidate a specific phenomenon (Ames et al., 2019; Campbell et al., 2020). Criterion purposive sampling will be the strategy applied in participant selection for this study. This is a sampling method whose attributes and procedures fit the needs and structure of this investigation.

Criteria-based sampling will be used to ensure that the inclusion criteria of nonvulnerable populations, age 18 and over, a registered nurse, employed in a health care setting, working in New York state, has provided care to COVID-positive patients, has received vaccines such as influenza, hepatitis B, and other vaccines. Criteria for exclusion are (a) under the age of 18; (b) has not received any other form of vaccination such as influenza, Hepatitis B, and other vaccines; (c) considers themselves an anti-vaxxer; (d) is not a registered nurse; (e) does not work in a health care setting, (f) does not work in New York state; and (g) has not provided health services to COVID positive patients. Moreover, I implemented a snowball sampling technique: initial participants were encouraged to refer their colleagues who align with the study criteria to achieve a broader reach and a more comprehensive participant pool.

An introductory email was distributed to potential participants through nursing forums and professional organizations. Once an individual expressed interest in the study and affirmed that they are a registered nurse and have experienced hesitance in receiving the COVID-19 vaccine, they received a follow-up email describing the purpose of the study, the goal and purpose of the interview, as well as an invitation to reply to the email provided to confirm their interest in participating in the study. The interviewees were asked to provide their preferred email addresses to enable the delivery of written notifications encompassing the study information and informed consent documentation.

Upon receiving an electronically signed study consent form, a mutual date and time were set for the interview. Once the date and time were confirmed, an invitation containing a Zoom link was provided. Interviews were conducted virtually and recorded.

Ethical consideration were observed in the participants' right to dignity and privacy. Recruitment and interviewing continued until data saturation was achieved which was characterized by a lack of new themes identified (see Mason, 2010). Sample size is determined by saturation; however, the literature estimates that at least 10 participants are needed to reach saturation; it is about the depth of the data (Burmister & Aitken, 2012). Participant size accommodations were made to ensure theme saturation (Guest et al., 2020; Polit & Beck,). Please see Appendix A for the sample communication the participants received.

Instrumentation

Data were collected through semistructured interviews that included questions soliciting demographic information followed by a series of open-ended questions that range from broad to specific as they relate to the phenomenon. Participants were asked to describe their experiences during the COVID-19 pandemic and their experience of being hesitant to vaccinate against the COVID-19 vaccine. Researcher journaling was done during the interview to capture independent free text recording of the researcher's experiences throughout the study's development and perceptions after interviewing each candidate (see Neubauer et al., 2019). The interview protocol consisted of questions developed by the researcher aligned with the tenets and posits of the TRA, RAM, and the phenomenological tradition. Interviews were conducted via Zoom using video and audio recording (see Archibald et al., 2019). Recordings were transcribed and analyzed through coding and constant comparison to elicit themes and patterns among interviews and experiences.

Content validity was established by ensuring that the semistructured interview questions and all tools used reflect the construct and study design and capture key concepts of the study: hesitance, attitude, perception, and environment, experiences of the participants, and align with the goal, purpose and problem statement of the study. Content validity is achieved by ensuring that all the participants are engaged in a standardized approach and that the instruments used reflects the study's construct (Creswell & Creswell, 2017). I also solicited the review of experts to critique the interview guide to establish content validity.

Interview Format

The interview style was a combination of clinical and cognitive interviewing facilitated by an interview guide to ensure a standardized approach for all interviews (Patton, 2015). The purpose of clinical interviewing supports the ability to draw inferences, while cognitive interviewing aims to decipher thought processes (Patton, 2015). Both styles add value to understanding the lived experience and the behavior associated with the perception/experience.

The format of the interviews was synchronous in time and asynchronous to place. This technique allows for extended access to participants but is a disadvantage in assessing social cues where applicable (Opdenakker, 2016). I leveraged technologies such as Zoom to facilitate this technique. Participants were asked to participate in a preliminary interview for approximately 60 minutes of open-ended, in-depth questions via virtually recorded sessions. I relied on the recordings to facilitate the ability to playback and clarify any points of ambiguity.

At the end of the initial interview, participants were asked if they would like to participate in a second interview lasting 20 to 30 minutes to foster reflexive participant collaboration and identify codes from the initial transcripts. In other words, participants were offered the opportunity to review transcripts for response verification and have an opportunity to add any missing information to help ensure validity (see Motulsky, 2021). After review and analysis of the second round of interviews, the participants were asked if they would like to participate in a final interview lasting 15 to 20 minutes to verify final themes identified during the analysis.

Data Analysis

The overall focus of phenomenology is to understand the meaning of the experience and derive a context for the phenomenon through interpretive data analysis. According to Gillespie et al. (2018), this approach facilitates gaining new understandings by exploring the individuals' subjectivity. Understanding the experience contributing to COVID-19 vaccination hesitance among registered nurses is the gist of investigating the phenomenon of hesitance in this group.

The primary data source were responses collected from participants during recorded interviews. Data collection tools included the interview guide, the recorded sessions, the participants, and me. The data collected in this study are subject to further analysis using qualitative data analysis (QDA) software for common themes and additional findings to help establish assumptions and derive conclusions. Each participant's interview recording underwent verbatim transcription through the Dictate Microsoft Word tool and subsequently subjected to content analysis. Categories were

used to sort the transcribed interviews through coding for themes and subthemes to be identified and data saturation measurement. Data saturation was characterized by a lack of new themes identified.

The constant comparative method was used to support the identification of new themes through a series of interview rounds. The primary focus of constant comparison is an exploration of similarities and or differences within and between interviews (Leong et al. 2010). More specifically, it is to determine if there are any contradictions in the reported experiences and also between respondents. The constant comparative method will help support a systematization of the analysis process, increase traceability, avoid reduced verification, poor credibility, and ensure external validity (Boeije, 2002). I engaged in an iterative process of conducting interviews, which involved comparing and contrasting the responses of the returning respondents at different intervals. The determination of the number of rounds of interviews conducted relied on the achievement of theme saturation.

Additional efforts in support of this study being grounded in data included memo writing, reading and rereading, coding, displays, data matrices, and diagrams. Collectively, all data points provide meaning to the behavior of COVID-19 vaccination hesitance in the context of registered nurses. The constant comparative method has multiple rounds of interviews. Saturation was determined at the point where there was no new introduction of themes.

I conducted three rounds of interviews and analyses. The first round of interviews used semistructured questionnaire to guide interview. First round of analysis (coding)

was to take the initial interview transcripts and identify codes that reflect the thoughts of the participants. Second round of interviews was to share codes with interviewees for further clarification and validation. Second round of analysis (axial coding) was to compare codes with codes and create categories (or axes) between the codes. Third round of interviews was to share categories for further clarification and validation. Third round of coding (selective coding) was to compare categories and create themes (see Boeije, 2002; Gupta et al., 2021; Leong et al., 2010).

Issues of Trustworthiness

Credibility

The credibility or internal validity of the study was established through transparency in the variation of participant demographics, the data collection methodologies, the expert review of the themes and subthemes, and the review of interviews conducted (Forero et al., 2018). Participant confirmation was achieved by ensuring the qualitative data were summarized individually to capture their lived experiences accurately. Seeking expert review through evaluation of the data translated into themes and the interview questions is key to achieving credibility. The allotted interview time of 60 minutes was long enough to ensure that participants had adequate time to answer the interview questions to their satisfaction. The credibility and conformity of the study relies heavily on the study's transparency and evidence of reflexivity. Peddle (2021) recommended using a reflexive questionnaire that follows the constructs of Pershkin's I's to be used throughout the study to enhance journaling, a form of bracketing. Journaling was an ongoing internal auditing feature throughout this study,

given the personal resonance of the topic to the researcher. Credibility is established when the research findings are realistic and feasible (Stahl & King, 2020).

Transferability

Transferability is the degree to which the results of qualitative research can be transferred to other contexts or settings conducted among other respondents (Lincoln & Guba, 1985). Replication of this study will rely on the type of replication desired, the epistemological stance and approach of the researcher, the replication's aim, and the study's nature (Tuval-Mashiach, 2021). To facilitate transferability for the purpose of validity and further contribution to exploring this phenomenon, full transparency will be provided of the procedures followed in participant selection, data collection, data analysis, and the overall management and development of the investigation.

Dependability

Dependability is achieved by enlisting the committee to perform an inquiry audit of the procedures and analysis of the study (Stahl & King, 2020). This audit ensures that if another researcher performs or analyzes the same study, the findings should be consistent with what is presented. One characteristic of dependability is ensuring uniformity in the tool assessed for data collection for each participant (Graneheim & Lundman, 2004).

Confirmability

Confirmability ensures that the study's findings are not influenced by the researcher but solely by the participant's experience as it aligns with the study design. Confirmability is the insurance of objectivity (Creswell & Cresswell, 2018). This

investigation will address confirmability through audit trails of data collection, data analysis, interpretation, and reflexivity (Nyirenda et al., 2020). An account of explicit explanations for all decisions made throughout the study will ensure transparency and the overall trustworthiness of the study.

Ethical Procedures

Prior to the official commencement of this qualitative research study, agreements and necessary approvals from the IRB will be obtained. Participants will be informed about the purpose and aim of the study and current controls to ensure confidentiality, respect for dignity, and privacy (Taquette & Borges da Matta Souza, 2022). Consent will be obtained and recorded for recordkeeping. Participants who express interest and meet the inclusion criteria will be contacted by email and provided with an explanation of the study's goal, purpose, and format. Once a mutual date has been confirmed, an invitation containing a Zoom link will be provided. Semi-structured interviews will be conducted virtually and recorded with permission (Newman et al., 2021).

The participants' ethical right to confidentiality, dignity, and privacy will be observed by de-identifying participants' personal information (Arifin, 2018). The ethical issues that will be addressed in this study include the participants' right to privacy and dignity. The study focuses on obtaining opinions about vaccine hesitance among registered nurses, which is likely an unpopular opinion where the nurses might have concerns about vilification and stigmatization by colleagues and the general population. The right to dignity and privacy is mandatory for all participants, and this will be explained during the recruitment process. Participants will be given the option to

withdraw from this qualitative study at any time, should they choose to. Privacy will be maintained through the use of codes for participant anonymity. The code legend and all study documents will be maintained in an encrypted drive. All study documents and recordings will be destroyed upon completion of the investigation.

Summary

In this chapter, I presented the chosen design and methodology ideal for this investigation and the necessary components to ensure that participants are appropriate and that key facets of a rigorous study are established. In summary, this study is firmly guided by the principles of TRA and the propositions of RAM, which collectively form a robust conceptual framework to explore the lived experiences of registered nurses exhibiting vaccine hesitancy. Chapter 3 solidified the rigorous measures for this study to ensure the trustworthiness and credibility of the findings. Next, Chapter 4 will provide granular details on how the study was conducted.

Chapter 4: Results

Introduction

This study aimed to understand the lived experiences of registered nurses contributing to COVID-19 vaccine hesitance within the context of TRA and RAM. The insight gained may aid in developing strategies to enhance vaccine acceptance in this crucial group and address the related concerns of healthcare leaders about COVID-19 vaccine hesitance. The research question that guided this study was: What are the lived experiences of registered nurses who were hesitant to receive the COVID-19 vaccine?

Setting

Prior to the solicitation of study participants, IRB approval was obtained. Participants of this study were recruited from June 2024 to August 2024. A recruitment flyer was sent to targeted nursing forums via email with permission to forward it to interested parties. The study invitation provided key details on the study's goal, purpose, and nature. The target demographic for this study was registered nurses in New York state who worked during the peak of the pandemic (February 29, 2020, through June 1, 2020) and experienced hesitance in receiving the COVID-19 vaccine.

Interested participants were asked to respond via email with "I agree" or "I consent," along with available dates and times for a virtual interview via Zoom. Upon study participation acceptance and availability provided, the study participants were sent a Zoom meeting invite to facilitate the interview. All scheduled sessions were deidentified with a generic link created inclusive of a pseudonym HRN#. The interviews

were conducted virtually in mutually comfortable spaces for the interviewer and interviewee.

Demographics

Twenty-one respondents expressed interest in study participation. Of the 21 respondents, 11 followed through with scheduling an interview session. During the introduction and inclusion verification of the interview, the 11th nurse confirmed that she was never hesitant in receiving the COVID-19 vaccine, thus did not meet the criteria for the study. The final sample size was 10 participants who met the study inclusion criteria. All participants were registered nurses in New York state who were 18 years or older, worked during the pandemic's peak, and experienced some form of hesitance in receiving the COVID-19 vaccine.

Data Collection

The Zoom platform was used for interviewing and audio-recording. Notes were taken during each interview session to complement the audio recordings and transcriptions provided by Zoom. The video recording feature was turned off to ensure confidentiality and in accordance with IRB guidelines.

Prior to asking the interview questions, I introduced myself as the study facilitator, stated the purpose of the study, and reminded the participants that participation was voluntary and that the interview could be terminated at any time. Participants were also afforded the opportunity to voice any questions or concerns. Permission was obtained prior to the recording of each session, along with a brief overview of how the data obtained would be stored and confidentiality maintained.

All interviews were conducted utilizing the established interview guide. The interview questions were semistructured, open-ended, predeveloped, and preapproved (see Appendix B). The average interview length was 20 minutes and 14 seconds. All participants were afforded an opportunity to ask questions upon completion of the interview and were also asked if they would be amenable to returning for a follow-up interview or being contacted for follow-up questions. All participants agreed to being willing to return for additional rounds of interviews to support clarity and meaningful data collection. Additional data sources included follow-up communication with some participants to clarify concepts or points of discussion from the initial interview, along with reflexive notes and memos. Gender-neutral pseudonyms were assigned to participants as HRN1 through HRN10. No unusual circumstances were encountered during the data collection process.

Data Analysis

The constant comparative method supports identifying new themes through interview rounds. The primary focus of constant comparison is an exploration of similarities and or differences within and between interviews (Leong et al., 2010). The constant comparative method helped support systematization of the analysis process, increase traceability, avoid reduced verification and poor credibility, and ensure external validity (Boeije, 2002). In accordance with the constant comparative approach, all participants agreed to participate in more than one round of interviews. For this study, an idea was considered a theme if it appeared in more than three of the initial interviews and resonated with the majority of the participants in the second round of interviews. This

method helped me to remain attuned to each participant's view of the world and their experience (Denzin & Lincoln, 2003; Saunders et al., 2018).

Although all participants agreed to return for additional rounds of interviews, only four participants returned for a second round of interviews, and none of the returning participants replied with their availability for a third round of interviews, resulting in a total of 14 completed interviews. Overall, participants were engaged and interactive during the scheduled interviews; the lack of return for the third round of interviews could be attributed to the ongoing demands of their everyday lives.

Semistructured interview questions facilitated careful exploration of the COVID-19 vaccine hesitance phenomenon. Familiarization with the interview data was fostered by listening to each recorded session within 24 to 48 hours of capture, aligning the shared thoughts with notes taken during the interviews, and further isolating key points to ensure triangulation. The recorded audio from each interview was transcribed using a transcription feature in Zoom. The review of transcripts marked the first round of analysis, coding.

The transcripts were reviewed using an inductive approach to capture the salient thoughts of the participants. The transcripts were reviewed again from a deductive approach, applying the concepts of TRA and RAM to help sort the thoughts and experiences shared within the study's conceptual framework. Theme saturation was achieved during this round of analysis as there were no new experiences shared by the sixth interview completed and similar instances were observed repeatedly throughout the review (see Saunders et al., 2018). The second round of analysis, axial coding, helped

establish any interrelatedness between the experiences and thoughts shared between interviews to derive categories. This round of analysis was used to confirm the participant experiences and to develop the following themes: loss of autonomy, confusion, safety, and isolation. The last coding round, selective coding, was used for validation. One limitation of the study was that there were no returning participants for the third round of interviews. As such, the information redundancy observed in the first round of coding was used along with the confirmation provided in the second round of interviews to infer validation of the information interpreted.

No discrepant cases were identified during participant interviews. All data aligned with the presented themes and categories with related patterns (Patton, 2015). The themes identified are all experiences shared by the participants, the environment was the setting for each lived experience, the beliefs were internal to the individual, the stressors were external and, in some context, internal, which all culminated the experience shared.

Evidence of Trustworthiness

Trustworthiness in qualitative research ensures that the presented data and findings are credible and reliable. The following sections present how trustworthiness was approached in four key aspects: credibility, transferability, dependability, and conformability.

Credibility

The credibility or internal validity of the study was established through transparency in the variation of participants, the data collection methodologies, the expert review of the themes and categories, and the review of interviews conducted (Forero et

al., 2018). Credibility was further ensured by requesting participants to clarify any ambiguity in their responses and confirming the accuracy of the researcher's understanding of the information gathered. This clarity was essential, as the sorted information informed the codes and themes presented. Participant confirmation was achieved by summarizing the qualitative data individually to accurately capture participants' lived experiences. The allotted interview time of 30 minutes provided participants with sufficient time to answer the interview questions to their satisfaction (Peddle, 2021). A triangulation of data collection methods—such as recorded interviews, interview observations, and field notes—was employed to comprehensively understand and identify the emerging findings (Merriam & Tisdell, 2016; Patton, 2015). Credibility is established when the research findings are realistic and feasible (Stahl & King, 2020).

Transferability

Transferability is the degree to which the results of qualitative research can be transferred to other contexts or settings conducted among other respondents (Lincoln & Guba, 1985). Replication of this study will rely on the type of replication desired, the epistemological stance and approach of the researcher, the replication's aim, and the study's nature (Tuval-Mashiach, 2021). To facilitate transferability for the purpose of validity and further contribution to exploring this phenomenon, full transparency is provided of the procedures followed in participant selection, data collection, data analysis, and the overall management and development of the investigation.

Dependability

Dependability was achieved by enlisting the committee to perform an inquiry audit of the study's procedures and analysis (Stahl & King, 2020). This audit ensures that if another researcher conducts or analyzes the same study, the findings will be consistent with those presented. A key aspect of dependability involved maintaining uniformity in the interview guide and data collection tools used for each participant (Graneheim & Lundman, 2004). Additionally, an intellectual audit trail was conducted to evaluate how the data was collected, how categories were developed, and how the resulting interpretations were formed.

Confirmability

Confirmability ensures that the study's findings are not influenced by the researcher but solely by the participant's experience as it aligns with the study design. Confirmability is the insurance of objectivity (Creswell & Creswell, 2018). This investigation addressed confirmability through audit trails of data collection, data analysis, interpretation, and reflexivity (Nyirenda et al., 2020). An account of explicit explanations for all decisions made throughout the study was facilitated through memos made during interviews and reflexive journaling to ensure transparency and the overall trustworthiness of the study.

Results

Data for this study were gathered through interviews with 10 participants using the interview guide provided in Appendix B. The research question guiding this inquiry was: What are the lived experiences of registered nurses who were hesitant to receive the

COVID-19 vaccine? This question addresses the phenomenon of vaccine hesitancy among registered nurses and seeks to explore their experiences and perspectives with COVID-19 vaccine hesitance.

The data analysis revealed several key themes and subthemes that reflect the lived experiences of registered nurses hesitant to receive the COVID-19 vaccine. These themes provide insight into the participants' perspectives and the factors influencing their decision-making processes. The discussion that follows presents the results of the experiences shared by participants. The themes derived reflect the point at which no new experiences were introduced in 10 out of 14 interviews completed and corresponding subthemes, illustrating how they relate to the phenomenon of vaccine hesitancy among nurses.

Theme 1: Loss of Autonomy

Autonomy is the ability and freedom to self-govern (Boston-Leart et al., 2024; Keshet et al., 2024). All respondents recounted feeling they lost their free will with regard to the COVID-19 mandate and the inability to speak freely on the hesitance experienced. Loss of autonomy also captured experiences of powerlessness with the vaccine mandate, such as lack of freedom of choice, loss of freedom, related fears of unemployment, and loss of livelihood due to a loss of autonomy. Participant HRN2 recounted, "I really felt like I had no choice, take it or lose my job." Other participants echoed similar experiences using words like *forced*, *strongarmed*, and *intimidated*.

Theme 2: Confusion

All participants shared experiencing confusion with the various iterations of guidelines presented by public health authorities on ways to prevent the spread of COVID-19, the recommended window to quarantine for COVID-19, expected practices of healthcare professionals in the prevention of COVID-19 and lastly, the efficacy of the COVID- 19 vaccine(s). Participant HRN3 recounted, “It feels like every week, the recommendations on managing this disease change.” The confusion experienced was also characterized as anxiety inducing and fearful by all participants.

Subtheme: Anxiety

Participants who reported feeling anxiety shared the following related experiences: inconsistent information related to vaccine(s), possible unemployment, anxiety related to shaming, divided workforce regarding vaccinated versus unvaccinated, doubt in vaccine efficacy, overwhelm related to hesitance, shaming, and constant policy changes.

Subtheme: Fear

Participants who reported feeling fear shared the following related experiences; fear in vaccine safety, unknown effects of the vaccine, rapid development of the vaccine, vaccine is not well tested, and mistrust in the government. Feelings and experiences of fear were shared among all participants in varying degree.

Theme 3: Safety

Safety is the second pillar to achieving self-actualization (Boston-Leary, 2024). As such, the need to feel safe is reflected in all aspects of life and decision making. All

study participants shared skepticism about the safety and efficacy of the COVID-19 vaccine due to it being new and not well studied and investigated. Prevalent experiences reported were vaccine safety, unknown effects of the vaccine, rapid vaccine development, the vaccine not being well tested, mistrust in the government, and doubt in vaccine efficacy.

Theme 4: Isolation

Isolation was another recurring theme that developed during selective coding. Under the auspices of RAM, there is an interplay between one's behavior and interaction with the environment (Boston-Leary, 2024; Jennings, 2017). Participants HRN1, HRN3, HRN6, HRN7, and HRN9 reported experiencing intimidation practices, overt and covert bullying, shunning, isolation, shaming, stigma, and mockery as a result of expressing hesitance to receive the COVID-19 vaccine. HRN 1 recounts, "In team meetings, nurses who were hesitant in receiving the vaccine were ridiculed and discussed with little to no empathy." HRN7 shared how coworkers would ask, "Did you get the vaccine yet?" in front of everyone, followed by, "Why not?" Participants HRN3, HRN6, and HRN9 collectively shared feeling embarrassed and powerless because of their hesitance. One observable contrast in the reports of isolation associated experience were the source of the stimuli. Some participants reported feeling shunned by colleagues whereas others would experience similar actions from superiors.

Subtheme: Retaliation

Participants who experienced retaliation reported enduring intimidation practices both privately and publicly, bullying both overt and covert, shunning, isolation, shaming,

stigma, and mockery. Overall, the experiences were surmised as the COVID-19 vaccine hesitance experienced was not handled by leadership and colleagues as a response worthy of exploration but dismissed as a nuisance and obstruction to public health.

Subtheme: Uncertainty

Participants who experienced uncertainty reported the following related topics; uncertainty with public health leaders and mixed messaging, uncertainty related to loss of livelihood and vaccine hesitance, unclear information provided by healthcare leaders and government, uncertainty related to long-term effects of the vaccine, uncertainty related to the future or the unknown.

Summary

The purpose of this qualitative study was to explore the lived experiences of registered nurses as it relates to COVID-19 vaccine hesitance. Through semi-structured interviews, ten participants were engaged in dialogue that resulted in the emergence of four major themes: Loss of autonomy, concerns with safety, confusion related to practices, and varying forms of isolation. The research question posed for this study was: What are the lived experiences of registered nurses hesitant to receive the COVID-19 vaccine? Through the conceptual lens of RAM and TRA, participant interviews were analyzed to elucidate the experience of hesitant registered nurses.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this qualitative study was to explore the lived experiences of registered nurses regarding COVID-19 vaccine hesitance. RAM and TRA provided the conceptual frameworks guiding the investigation. Semistructured interviews with 10 participants were conducted to examine their experiences with COVID-19 vaccine hesitancy and gain deeper insights into the underlying factors contributing to this phenomenon among registered nurses.

The findings from this study offer important context to the issue of COVID-19 vaccine hesitance specifically and more broadly vaccine hesitancy within the nursing profession. Additionally, the data revealed a theme not widely addressed in the existing literature: experiences of isolation among registered nurses who expressed hesitancy toward receiving the COVID-19 vaccine. The analysis identified four key emergent themes from the interviews: (a) loss of autonomy, (b) concerns with safety, (c) confusion related to healthcare practices, and (d) varying forms of isolation.

Interpretation of the Findings

RAM and TRA provided the structural framework for this study, guiding its focus on the interconnectedness of environmental factors, beliefs, personal experiences, and stressors that influence human responses. These frameworks were particularly relevant for examining the attitudes, behavioral intentions, and resulting behaviors of registered nurses regarding COVID-19 vaccine hesitancy.

This study sought to fill a gap in the existing literature, as little research has specifically explored the experiences of registered nurses who expressed hesitancy toward receiving the COVID-19 vaccine. The absence of such research underscores the importance of this inquiry, offering new insights into the attitudes and lived experiences of this population during the pandemic. The findings not only provide a deeper understanding of nurses' personal experiences but also illuminates the broader environmental impacts that result from their hesitancy.

The findings of this study highlight various forms of isolation experienced by nurses across different roles within the profession. Consistent with RAM, environmental factors and interactions at multiple levels acted as stressors, contributing to heightened feelings of anxiety, stress, and hesitancy. Participants reported experiences of retaliation and social exclusion from both supervisors and colleagues, underscoring the need for greater mindfulness and tolerance toward individuals expressing vaccine hesitancy.

Fostering tolerance involves demonstrating empathy toward staff and colleagues while ensuring the workplace remains free from the undue influence of personal beliefs and preferences. This approach can be further reinforced through sensitivity training aimed at promoting awareness, mindfulness, and respectful conduct among healthcare professionals.

The experience of loss of autonomy was directly related to the COVID-19 vaccine mandate and the threat of loss of employment. In this context, public health leaders and political leaders could leverage evidence-based practice measures that are proven effective in reducing the spread of disease and maintaining a healthy milieu. Doing so

will allow those who are hesitant to reach the comfort level they seek in determination of whether to vaccinate (Ahuja et al., 2021; Akther & Nur, 2022; Bratu, 2021).

Nurses who expressed concerns with safety and vaccine efficacy aligned with similar accounts found in literature on COVID-19 vaccine hesitance in the general population at large (Cascini et al., 2021; CDC, 2023; Conejero et al., 2023; Ecker & Kutalek, 2021). Concerns with vaccine safety should be addressed by public health leaders through education initiatives that address the rigor of vaccine approval, the definition of safety in the context of vaccines, and the approval process for vaccines. By dispelling myths and clarifying the formal processes for vaccine testing and approval there is transparency on the course of action but most importantly reassurance through education.

Another opportunity for improvement is yielded through lessons learned. Several participants experienced anxiety and fear related to the constantly changing guidelines and standards of practice related to COVID-19 vaccines, period of quarantine, social distancing, and overall recommendations during the peak of the pandemic. The pandemic was a challenging experience for public health officials, health care leaders, government officials, health care workers and everyday people. Fortunately, the lessons learned through this pandemic have allowed leaders of all sectors to anticipate and mitigate the effects of future pandemics, establish evidence-based approaches on when to quarantine and for how long, and consider the risk and benefits of the different vaccines available.

Limitations of the Study

One limitation of this study is the absence of differentiation among participants based on demographic and professional characteristics such as sex, race, education level, specialty areas of practice, and religious beliefs. Including these variables could have provided deeper insights into how specific subgroups within the nursing population experience and respond to COVID-19 vaccine hesitancy. The exploration of these characteristics may have revealed nuanced perspectives, thereby enriching the data and contributing to a more comprehensive understanding of the phenomenon (see Park et al., 2024). Another limitation was that none of the participants returned for a third round of interviews, which would have supported selective coding.

Recommendations

Future research should focus on further exploring the experiences of nurses who expressed hesitancy toward receiving the COVID-19 vaccine, with particular attention to specific demographic and professional factors (Bruine et al., 2022; Krastev et al., 2023; Sinuraya et al., 2024). Investigating the ways in which hesitant nurses navigated their emotions and managed their experiences over time would also provide valuable information for policy development and organizational practice implications. Additionally, it is essential to explore the experiences of underrepresented groups, as their perspectives may differ from those of nurses working in hospitals during the pandemic. Lastly, another recommendation for future study would be an investigation of similar context but of a quantitative approach.

Implications

The findings of this study are generalizable and contribute to the existing body of knowledge in public health and disease prevention. The findings are generalizable in that the concerns and experiences shared by the nurses is more likely to mirror the experiences of healthcare-workers and the public at large as it relates to vaccination hesitance. The experience of these nurses adds context and insight to the phenomenon of COVID-19 vaccine hesitance but specifically the need for empathy when addressing hesitance. This study has implications for positive social change because it allows leaders and colleagues to appreciate the level of empathy needed when interacting with someone who is experiencing hesitance, the unconscious biases that are exhibited and how this impacts vaccine acceptance and contributes to maladaptive behaviors.

Conclusion

The findings of this study highlight the importance of acknowledging the experiences of registered nurses who expressed hesitancy toward the COVID-19 vaccine. Recognizing and understanding these experiences can help minimize apathy toward vaccine hesitancy and non-vaccination, fostering a more empathetic approach toward hesitant individuals. By exploring the underlying reasons for their reluctance, healthcare institutions can create a more supportive and inclusive environment that values diverse perspectives.

Participants shared that expressing hesitancy often led to negative experiences, including intimidation by supervisors, overt and covert bullying, social exclusion, shaming, stigmatization, and mockery from colleagues. These adverse responses

contributed to feelings of isolation and reinforced the emotional burden associated with their hesitance. According to RAM, these forms of interpersonal and organizational mistreatment functioned as environmental stressors, intensifying participants' anxiety and fear.

This study emphasizes the need for healthcare organizations to address the stigma and hostility directed toward staff who express vaccine hesitancy. Fostering an empathetic workplace culture requires promoting respectful dialogue, providing access to mental health resources, and developing sensitivity training programs. Such initiatives can mitigate the adverse effects of vaccine hesitancy and promote psychological well-being among healthcare professionals.

Ultimately, the insights gained from this research offer a foundation for healthcare leaders to better understand the complexities surrounding vaccine hesitancy within the nursing workforce. By addressing these challenges, organizations can cultivate a culture that balances public health priorities with compassion, ensuring that all healthcare professionals feel respected and supported, regardless of their personal views or decisions about vaccination.

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Appendix A: Email Invitation

Subject line:
Interviewing Registered Nurses that were Hesitant to Vaccinate Against COVID-19

Email message:
There is a new study about Understanding the Experiences of the Registered Nurse Hesitant to Vaccinate Against COVID-19. For this study, you are invited to describe your experiences regarding receiving or refusing the COVID-19 vaccine.

About the study:

- One 30–60-minute Zoom interview that will be audio recorded.
- To protect your privacy, the published study will not share any names or details that identify you.

Volunteers must meet these requirements:

- *A licensed registered nurse*
- *Employed in a health care setting.*
- *Does not identify as an anti-vaxer.*
- *Has experienced hesitance in receiving the COVID-19 vaccine.*

This interview is part of the doctoral study for Lucille Fenelon, a Ph.D. student at Walden University. Interviews will take place during May-June.

Please email Lucille.fenelon@waldenu.edu to let the researcher know of your interest. You are welcome to forward it to others who might be interested.

Appendix B: Interview Questions

1. How do you define vaccine hesitance?
    a. Do you consider yourself hesitant to receiving the COVID-19 vaccine?
    b. What is your experience with COVID-19 vaccine hesitance?
2. Describe your experience working during the COVID-19 pandemic?
    a. What did you experience in your work environment?
    b. What was your experience with colleagues?
    c. What was your experience within your community?
3. What contributed to your experience of COVID-19 vaccine hesitance?
4. Describe your feelings about the COVID-19 mandate?
5. What challenges did you experience that could be related to your hesitance with the COVID-19 vaccine?
6. What else would you like for me to know about your experience with COVID vaccination hesitance?

Appendix C: Data Analysis

Categories and Codes

Category 1: Anxiety
Inconsistent information related to the vaccine(s)
Possible unemployment
Anxiety related to shaming
Divided workforce- vaccinated vs unvaccinated
Doubt in vaccine efficacy
Overwhelm-related hesitance and feeling of shaming
Constant policy changes

Category 2: Fear
Vaccine safety
Unknown effects of the vaccine
Rapid development of the vaccine
The vaccine is not well-tested
Mistrust in the government

Category 3: Powerlessness
Vaccine Mandate
Lack of freedom of choice
Loss of autonomy
Risk of unemployment
Loss of livelihood

Category 4: Uncertainty
Uncertainty related to public health leaders and mixed messaging
Uncertainty related to livelihood and vaccine hesitance
Unclear information provided by healthcare leaders and government
Uncertainty related to the long-term effects of the vaccine
Uncertainty related to the future- unknown

Category 5: Retaliation
Intimidation practices
Bullying- overt/covert
Shunning
Isolation
Shaming
Stigma
Mockery