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Parents' Perceptions of Healthcare Influences on Their Decisions to Vaccinate Their Children

Patricia Frances Badiola Harris
Walden University

Walden University

College of Health Sciences

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Patricia Frances Badiola Harris

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Review Committee
Dr. Margaret Harvey, Committee Chairperson, Nursing Faculty
Dr. Francisca Farrar, Committee Member, Nursing Faculty
Dr. Deborah Lewis, University Reviewer, Nursing Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

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Patricia Frances Badiola Harris

MSN, Walden University, 2014

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Declining immunization rates are associated with higher incidents of vaccine-preventable diseases. The purpose of this qualitative phenomenological inquiry was to explore the perceptions of vaccine-hesitant parents regarding their healthcare experiences. Ajzen and Fishbein‘s theory of reasoned actions and its key concepts (the intention to perform behaviors, attitudes, subjective norms, and external variables) was used as a framework to understand influences on parents' decisions to vaccinate their children. The research questions for the study examined the healthcare experiences of vaccine-hesitant parents, how these experiences influenced their decisions to vaccinate their children, and how this group perceived the current strategies promoting vaccinations for their children. Ten interviews with parents who delayed or refused immunization for their children with varying ambivalent attitudes towards vaccines were conducted in a large Midwestern city in the United States. Interviews were conducted face-to-face and via phone. Recordings were analyzed using Atlas.ti edition 8 to generate codes, themes, and subthemes. Thematic analysis revealed 4 themes to explain parents’ perceptions of healthcare experiences and the current strategies promoting vaccinations, which included criticism, lack of transparency, diminished treatment, and desire for knowledge. The study findings are beneficial to all entities looking to improve the understanding of vaccine-hesitant parents’ perceptions of healthcare and increase vaccination rates. Social change implications consist of generated strategies to improve vaccination rates for children, education on vaccine-preventable diseases, and increased awareness of the negative consequences of vaccine refusal.

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Dedication

I dedicate my work to my family, specifically to my husband, Eddie, for his indelible understanding, patience, and financial support. Thank you for supporting my dreams and pursuits to obtain my doctoral degree. Special thanks go to my mother and father, Mericia and Froilan, for taking care of my children, Elise and Lex. Without you, I would not have been able to accomplish this endeavor. To my beautiful children, Elise and Lex, thank you for understanding that Mommy had “important work to do.” I am forever grateful. To my two best friends, Chioma and Kathrina: Thank you for the endless conversations and encouragement. You kept me motivated throughout this process. I love you both. Last but not least, Barney and Pam. Our Ph.D. support group got me through some difficult times. I am thankful that our friendship and sense of humor lightened this journey. I could not have done this without you both in my corner.

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Table of Contents

List of Tables

Chapter 1: Introduction to the Study

Vaccinations have contributed to a drastic decline in vaccine-preventable disease (VPD). According to Shen and Dubey (2019), the use of vaccines has resulted in the eradication of polio, measles, and rubella in the United States. However, despite evidence of the benefits of immunization, a growing number of parents in the United States are intentionally delaying or refusing vaccinations due to vaccine efficacy and safety concerns (Connors, Hodges, D'Auria, & Windham, 2018). This course of action has impacted the number of cases of VPDs and deaths leading to a significant rise in the United States (Centers for Disease Control and Prevention [CDC], 2018c; Vyas, Galal, Rogan, & Boyce, 2018).

Diseases that were once suppressed are now reemerging. An illustration of this phenomenon is the current measles outbreak in the United States. From January 1 to June 20, 2019, there were 1,077 confirmed cases of measles in 28 U.S. states (CDC, 2019). These cases are primarily attributed to unvaccinated individuals (Lindberg, Lanzi, & Lindberg, 2015). Shen and Dubey (2019) emphasized the importance of herd immunity, meaning adequate vaccination rates. This level of immunity is required to avert direct transmission of infectious disease. To prevent the resurgence of VPDs, experts contend that research must be conducted to find effective strategies to prevent vaccine hesitancy or refusal (Lindberg, Lanzi, & Lindberg, 2015; Shen & Dubey, 2019).

In this chapter, I delineate the background issues pertaining to vaccine hesitancy, elucidate the problem and purpose of the study, and articulate the research questions (RQs). The components of the study including the theoretical framework, nature of the study, definitions, assumptions, scope and delimitations, and limitations are addressed. This chapter concludes with a discussion of the significance of the study and its implications for positive social change.

Background

Despite research showing that vaccinations are the most effective public health strategies to regulate and prevent VPDs, not all parents view vaccines as beneficial (Ventola, 2016). The World Health Organization (2019) estimated 19.9 million children worldwide did not receive life-saving vaccinations in 2017. Countries with low immunization coverage are at the highest risk for outbreaks of VPDs (Ventola, 2016). To prevent and control epidemics of diseases, leaders at the organization initiated the Global Vaccine Action Plan. A primary objective of the plan is to monitor and assess the impact of current strategies for reducing the morbidity and mortality rates of VPDs (World Health Organization, 2019). The World Health Organization Plan aims to ensure immunization targets are being reached globally.

To determine the effects of low immunization coverage, Ventola (2016) examined the impact of vaccines on the morbidity and mortality of infants and children in Western countries. Ventola found a significant decrease in the number of VPDs, attributing the decline to the national immunization strategies targeting infants and children. For example, Haemophilus influenza type b (Hib) was the primary cause of meningitis in children younger than 5. In the early 1990s, following the introduction of the Hib vaccination, a 99% reduction of meningitis was noted (Ventola, 2016). In 2000, the pneumococcal conjugate vaccine (PCV7) was introduced, resulting in a rapid decline of pneumonia. Specifically, the pneumococcal disease was reduced by 45% in children younger than 5 years old in the year following the launch of the vaccine (Ventola, 2016). In 2010, after the addition of six serotypes to the PCV7, PCV13 was introduced; the incidence of pneumococcal disease vaccine was reduced by 90% in 2011 (Ventola, 2016). Another example of the efficiency of vaccines is the 2000 introduction of the rotavirus (RV) vaccine. Following the introduction of the RV, an estimated 77,000 hospital admission reduction relating to RV was noted in the U.S. (Ventola, 2016). These statistics substantiate the efficiency of vaccines in reducing the threats of VPD.

Yet, the incidence of VPD is reoccurring as illustrated by various VPD outbreaks within the United States. The resurgence of VPD has highlighted the negative consequences precipitated by vaccine noncompliance (Woo, 2016). Woo (2016) demonstrated that there is a correlation between children and adolescents who were not vaccinated and VPD outbreaks. This finding substantiates that low vaccination rates are the cause of the epidemics of VPD. To exemplify the resurgence of VPD, the CDC (2018c) examined longitudinal data depicting the rapidly increasing morbidity and mortality rates of VPD in the United States from 1950 to 2016. Specifically, the CDC examined trends of diphtheria, tetanus, pertussis, polio, measles, mumps, rubella, hepatitis A, hepatitis B, haemophilus, varicella, and meningococcal B. The data indicated that an increasing number of populations are affected by the diseases (CDC, 2018c). In another study by the CDC (2019), researchers studied the cases of measles reported from January to June 2019. Findings show that measles has proliferated in 28 U.S. states and has affected Arizona, California, Colorado, Connecticut, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, Missouri, Nevada, New Mexico, New Hampshire, New Jersey, New York, Oklahoma, Oregon, Pennsylvania, Texas, Tennessee, Virginia, and Washington (CDC, 2019). The CDC emphasized that cases in affected states primarily occurred among unvaccinated populations. VPD continues to rise in prevalence. To reduce the recurrence of VPD, it is imperative that immunization rates remain prominent.

There are severe consequences of vaccine refusal for patients and the population at large (Bednarczy, 2018; Vyas et al., 2018). Vyas and colleagues (2018) emphasized the need for assessing and addressing reasons for vaccine hesitancy. To address the problem of vaccine refusal, they conducted a study examining the impact of a vaccine hesitancy learning unit on pharmacy students' knowledge, attitudes, and ability to address vaccine hesitancy (Vyas et al., 2018). The study results illustrate the importance of communication skills and confirm that adding a vaccine hesitancy learning unit to a pharmacology course significantly improved students' knowledge, confidence, skills, and ability to address vaccine-hesitant patients (Vyas et al., 2018). Likewise, Bednarczy (2018) emphasized the need to address reasoning behind vaccine hesitancy. Bednarczy examined the primary causes of vaccine noncompliance. The author identified a lack of trust with key institutions such as the government and vaccine manufacturers as a primary predictor of vaccine hesitancy (Bednarczy, 2018). Bednarczy's study implies that current strategies of knowledge sharing and myth correction are ineffective for increasing vaccination compliance rates. In this context, improving the understanding of individuals' values may assist healthcare professionals in developing efficient strategies for vaccine hesitancy.

Understanding vaccine hesitancy is challenging. Fahlquist (2018) discussed how adults’ concerns regarding vaccinations are complex and undergirded by scientific, psychological, sociocultural, and political factors. The study emphasized that effective communication begins with a discussion of concerns which will demonstrate respect for individuals’ perspectives (Fahlquist, 2018). These concerns require additional examination so that researchers can generate effective strategies. If providers do not consider the context of adult concerns, strategies and attempts to address vaccination hesitancy would most likely be ineffective (Fahlquist, 2018). The gap in knowledge relating to vaccines is vaccine-hesitant parents’ perceptions of healthcare. Inadequate knowledge of their perceptions will result in the inability of healthcare providers to generate efficient strategies to improve vaccination compliance. Vaccination compliance is a priority and is known for reducing vaccine-preventable death (World Health Organization, 2018). Nurses are essential to counseling vaccine-hesitant parents in their decision-making process (Mohanty et al., 2018). In conducting this study, I sought to understand parental perceptions so that nurses and other healthcare providers can create efficacious strategies to accelerate immunization rates.

Problem Statement

Despite the pivotal role of vaccinations in eradicating diseases, an increasing number of parents perceive vaccinations as hazardous. Research studies have revealed that vaccine refusal originates from mistrust between parents and providers and the fear of dangerous vaccine side effects such as long-term seizures, coma, and permanent brain damage (CDC, 2018a; Vyas et al., 2018). This perception has tremendously impacted the number of cases of VPDs and deaths leading to a significant rise in the United States (CDC, 2018c; Vyas et al., 2018). Infectious diseases that were once suppressed are now reemerging. For example, in 2000 the CDC considered the measles to be eliminated in the United States (Lindberg et al., 2015). Currently, the CDC no longer classifies the measles as eliminated.

Since 2000, there have been sporadic outbreaks of measles primarily in unvaccinated individuals, totaling 911 reported cases (Lindberg et al., 2015). These numbers continue to rise. Between January 1 and June 20, 2019, there were 1,077 confirmed cases of measles in 28 states (CDC, 2019). This outbreak is the most significant number of reported cases since the CDC's attestation of elimination in 2000. Measles has potential severe complications which might lead to pneumonia, neurological disorders, and death (Lindberg et al., 2015). For healthcare providers to prevent further disease progression, it is imperative to examine and understand the reasons why parents refuse to vaccinate their children.

Considering the integral role vaccines have in reducing morbidity and mortality rates, it is crucial to examine the perceptions of parents on healthcare, how their experiences have influenced their decision-making, and what prevents them from vaccinating their children. Numerous researchers have approached vaccine hesitancy with strategies to counter the beliefs of the individuals through myth correction and information dissemination (Bednarczy, 2018; Vyas et al., 2018). Bednarczy (2018) accentuated that these strategies are ineffective and often fail to improve vaccination rates. Mohanty et al. (2018) indicated that limited literature exists on successful interventions that reduce parental vaccination hesitancy. There is a gap in the literature regarding vaccine-hesitant parents' perceptions of healthcare. Without knowledge of parents' perceptions, healthcare providers cannot generate effective strategies to improve vaccinations rates. The World Health Organization (2018) prioritized vaccination acceptance and compliance as a top priority for reducing VPD. Mohanty et al.'s (2018) contention that nurses are an essential factor in guiding parental vaccine decision-making supports the potential for healthcare providers to improve immunization rates through thorough assessments and demonstration of respectful understanding.

Purpose

The purpose of this study was to explore the perceptions of vaccine-hesitant parents regarding their healthcare experiences, how their experiences influence their healthcare decisions to vaccinate their children, and how this group perceives the current strategies promoting vaccinations for their children. To address the gap in the literature on how vaccine-hesitant parents perceive healthcare, I used a qualitative paradigm with a phenomenological approach. Examining the perceptions of adults who have an aversion to preventative health interventions such as vaccinations may assist researchers and healthcare providers in creating individualized and efficient strategies. Implementation of these strategies might improve vaccination rates for children.

Research Questions

RQ1: How do the healthcare experiences of parents influence their healthcare decisions to vaccinate their children?

RQ2: How do parents perceive the current strategies promoting vaccinations for their children?

Theoretical Framework

The theoretical framework selected to guide this research was the theory of reasoned action (TRA). This framework is a traditional health promotion model which focuses on one’s access to information regarding the risks and benefits of interventions and the outcomes they prevent (Bednarczyk, 2018). According to Wong and Chow (2017), the TRA is often utilized in research to examine attitudes, intention, and health-related behaviors. There are four primary constructs of TRA which includes intention to perform the behavior, attitudes, subjective norms, and external variables. TRA asserts that an individual’s behavior is determined by their intention to perform the behavior and the intention is a derivative of one’s attitude towards a behavior (Models and Mechanisms of Public Health, 2019). The simplification of TRA led to a more practical use of the theory in various fields. I interviewed adults with vaccine hesitancy, explored, and provided understanding regarding their attitudes, which influenced their behaviors and intention. Wong and Chow emphasized that attitude towards a behavior is crucial in predicting behaviors. The problem statement seeks to address the under-researched area of the parents’ perceptions of healthcare. This framework was chosen considering it examines the individual, their thought processes, and lived experiences which effects their healthcare decision making, which aligns with the chosen method of phenomenology.

Nature of the Study

The nature of this study was qualitative research with a phenomenological approach. A phenomenological approach assesses the meaning, structure, and essences of the lived experiences of individuals or a group of people (Patton, 2015). According to Patton the focus of phenomenology is to explore how human beings make sense of their experiences. This method requires the researcher to examine and capture how people experience a phenomenon thoroughly. This study resulted in an understanding of how parents perceived health care. One’s experience of healthcare can tremendously impact how they make healthcare decisions. For example, if an individual has a negative experience with a physician, this interaction might deter them from accepting the physician’s recommendations. A phenomenological approach can assist researchers in gaining a further understanding of the experiences that affect decision making.

Definitions

The primary electronic databases utilized to audit the literature was EBSCO. With the EBSCO database, access to online journals and books were integrated into the search. The literature searches focused on the vaccine hesitancy and the antivaccination movement. The vaccine statistics and recommendations were found using the Walden University Library, CINAHL, ERIC, PsychINFO, and Google Scholar. A majority of the literature included in this study was from 2014-2019. Depending on the search results certain aspects such as publications times and full text were expanded or contracted. The keywords selected for my search were derived from my research questions. Related terminology and additional terms were identified from concepts in my study and added in the literature review. The search terms used in the initial search include, vaccine hesitancy, vaccine refusal, antivaxxer, and healthcare experience. Additional search terms identified included vaccine related deaths, antivaccination movement, health attitudes, decision making, immunization, and health promotion. Upon review, the following key terms have been identified for this study:

Ambivalent attitudes: The inability of parents to choose between two courses of action. The term pertains to the indecisiveness parents experience when deciding whether to vaccinate their children (Rossen, Hurlstone, Dunlop, & Lawrence, 2019).

Antivaxer: A term ascribed to individuals who have a strong opposition to vaccines (McGovern, 2019). This opposition frequently results in either the declination or deferral of vaccines (Kubin, 2019).

Herd immunity: A vast proportion of a given population with acquired immunity to an infectious disease (CDC, 2018b). Immunity is customarily gained through the vaccination process or cultivated through prior illness (Vyas et al., 2018). Herd immunity significantly decreases the risk of contracting diseases. At-risk populations such as infants, children, and older adults are afforded protection through herd immunity as it reduces the probability of the spread of infectious diseases within the community (Kubin, 2019; Vyas et al., 2018).

Immunization: The process through which a person receives immunity from disease through vaccination (CDC, 2018c).

Outbreak: A sudden escalation in the number of disease occurrences in a limited geographical area affecting a population (CDC, 2017).

Vaccination: The process through which individuals receive vaccines, producing active acquired immunity to specific diseases (CDC, 2018c).

Vaccine: A biological preparation that stimulates the immune system and which results in the body's production of antibodies (CDC, 2018c).

Vaccine compliance: The adherence to the Advisory Committee on Immunization Practices' (ACIP) recommended vaccination schedules (CDC, 2018b; Ventola, 2016). The ACIP provides recommended guidelines to providers on age-appropriate time frames for vaccines (CDC, 2018b).

Vaccine exemption: Exceptions made to specific individuals despite state vaccination laws mandating vaccines (National Conference of State Legislatures, 2019). Immunization laws permit exemptions for medical reasons, religious objections, and philosophical exemptions (Bradford & Mandich, 2015; National Conference of State Legislatures, 2019). Philosophical exemptions are defined as a restriction based on moral, philosophical, and other personal beliefs; currently, 15 states permit philosophical exemptions from vaccinations (National Conference of State Legislatures, 2019).

Vaccine hesitancy: Ambivalence regarding specific vaccines or vaccination in general (Kestenbaum & Feemster, 2015). Bedford and colleagues (2018) implied that those with vaccine hesitancy often refrain from making a decision due to doubt and indecision.

Vaccine refusal: The declination of vaccines (Dube, Gagnon, & MacDonald, 2015).

Vaccine-preventable disease (VPD): An organism that causes infectious diseases which can be prevented and controlled by vaccines (Kestenbaum & Feemster, 2015; Kubin, 2019).

Assumptions

The primary assumption is that all information provided by participants is accurate. For this study, I assumed that participants interviewed would provide veracious answers according to their ability to comprehend the questions. This assumption was made considering the study's exclusion criteria which excludes individuals who are incapable of elucidating understanding of the different points of discussion. It was also assumed that parents had rationales for decisions regarding immunizations. The studies included in my literature review and the data collected for this study are assumed to be accurate. The data from this study provided insights about perceptions on why parents choose to vaccinate or not vaccinate their children.

Scope and Delimitations

This study aimed to explore the perceptions of adults with vaccine-hesitancy regarding their healthcare experiences, how their experiences influenced their healthcare decisions to vaccinate their children, and how this group perceives the current strategies promoting vaccinations for their children. I intended to examine the role of perceptions during a time of proliferating vaccine hesitancy/refusal and VPD outbreaks and its relation to the theory of reasoned actions while reviewing current existing interventions initiated to enhance compliance with the ACIP vaccine schedule. Gaining this understanding can assist healthcare officials to develop effective strategies to promote vaccinations. The research plan consisted of an examination of a population of parents residing in Ohio with school-aged children. Participants with children not residing in Ohio were excluded from this study. In consideration of the selected method for sampling, participant distinctions are limited. Therefore generalizations for future studies are difficult to presume.

Limitations

The primary challenge of this study was participant access. I was uncertain about the potential resources which could assist me in gaining participant access. In consideration of this challenge, the sampling strategy most suited for this study was purposive snowball sampling. This sampling approach entails subjects recruiting additional participants. This approach is appropriate when members of special populations are difficult to access (Babbie, 2017). There are known disadvantages to this approach which includes potential bias, non-random sampling, and insufficient sample size (Babbie, 2017).

The most concerning aspect of this sampling strategy was sampling bias. Considering that participants referred known acquaintances to the study, there was a higher probability that the participants shared similar traits and characteristics (Etikan, Alkassim, & Abubakar, 2016). Thus, the sample obtained represented a small subgroup of the entire population. Another consideration is that of an insufficient sample size. The participants in this study might not accurately represent all parents. Another potential limitation of this study was participant honesty and accuracy. The inherent nature of parents with vaccine hesitancy to not disclose their perceptions and beliefs can stem from the judgment, belittling, criticism, and ridicule from pro-vaccine individuals (Getman et al., 2018). Another limiting factor was that participants might be known acquaintances of each other, which limited the study's guarantee of confidentiality (Babbie, 2017). Anonymity can only be guaranteed when neither the researcher nor readers of the findings can identify a given response with a given respondent. Scrutiny and knowledge of identity can limit the subject's willingness to discuss their perceptions (Etikan, Alkassim, & Abubakar, 2016).

A phenomenological study design was suitable for my research as it allowed detailed investigation, exploration, and understanding of the various issues contributing to vaccination hesitancy (Patton, 2015). The phenomenological approach describes the subjective realities of events as perceived by the study participants, permitting the researcher to obtain a first-person viewpoint of the study subjects (Patton, 2015). The results of this approach might expose misconceptions about vaccine hesitancy, which may prompt action or challenge pre-conceived concepts of vaccine-hesitant parents (Swaney & Burns, 2019). This approach requires participants to articulate their thoughts and feelings regarding the study topic. Data might be limited if the subjects have difficulty expressing themselves due to language barriers, difficulties in understanding the questions, and limitations in cognition (Patton, 2015). To address these potential limitations participants who cannot elucidate understanding of the different points of discussion were excluded. Another imperative limitation to note with phenomenology is the potential for researcher bias, considering this approach requires researcher interpretation. Researcher bias can be difficult to identify and determine. To reduce the potential of research bias, collaboration and review with colleagues are required, which can be time-consuming and laborious (Patton, 2015).

Significance

This research study filled a gap in understanding the perceptions of vaccine-hesitant parents and why they chose not to vaccinate their children. This project is distinct as it addressed the under-researched area of exploring how vaccine-hesitant parents' experiences in healthcare had influenced their decisions to vaccinate their children. This study led to approaches which assisted in creating individualized strategies to address the perceptions of adults with vaccine hesitancy. Various research study strategies focus on modifying an individual's thinking (Vyas et al., 2018). These strategies are often unsuccessful, resulting in defensive behaviors, and decreasing intentions to vaccinate (Bednarczy 2018). The results of this qualitative study provided researchers with a better understanding of the process of developing individualized strategies for adults with vaccine hesitancy. The results of this study can assist in generating a foundation of knowledge which will demonstrate respect, cultural sensitivity, and value for individuals (Ranjan, Kumari, & Chakrawarty, 2015). Instead of belittling an adult's behaviors and thought processes healthcare providers would create an environment of acceptance and appreciation for the individual (Ranjan, Kumari, & Chakrawarty, 2015). These factors can assist in patient compliance. This study can provide much-needed knowledge for parents, healthcare providers, and individuals seeking to reduce the VPD.

The results of this study provided much-needed insights into the perceptions of adults who choose not to vaccinate their children. Nurses play an essential role in primary prevention considering they are the leading providers of patient education. Education is a necessary step in the arsenal against vaccine-related diseases. Kessler (2017) recommended that healthcare providers pay particular attention to the determinants of vaccination refusal. Adverse healthcare experiences can tremendously influence how an individual perceives vaccine recommendations. The findings of my study led to positive social change by providing a better understanding of the perceptions of vaccine-hesitant parents. This understanding could help nurses establish rapport, build trusting relationships, and improve dialogue to communicate information to patients, families, and communities effectively. More importantly, these perceptions can lead to the creation of individualized education and care plans to match the needs of a particular population and to overcome the hindrance of health literacy (Rogers & Cantu, 2009). Nurses are in the front line of providing education and strategies to overcome barriers to vaccine hesitancy and refusal.

Summary

Parents are increasingly becoming hesitant to vaccinations, despite the proven efficacy and safety of vaccines (Shen & Dubey, 2019). The exemptions based on medical, religious, and philosophical reasoning are placing the population at risk for VPD (Bradford & Mandich, 2015; National Conference of State Legislatures, 2019). VPD can be prevented and controlled through adequate immunizations rates. The purpose of this study was to examine parents' perceptions regarding healthcare and how these experiences affect their decision-making. This study can identify efficacious vaccination strategies. The following chapter presents a comprehensive literature review of current literature, the current state of vaccine hesitancy, literature search strategies, the theoretical foundation that supports and guides this study, key concepts pertaining to this study, and summary/conclusions.

Chapter 2: Literature Review

Introduction

Vaccinations have contributed to a drastic decline in VPD. According to Shen and Dubey (2019), the use of vaccines has resulted in the eradication of polio, measles, and rubella in the United States. Despite the benefits of immunization, a growing number of parents are intentionally delaying or refusing vaccinations due to vaccine efficacy and safety concerns (Connors et al., 2018). This course of action has significantly impacted the number of cases of VPDs and deaths leading to a significant rise in the United States (CDC, 2018c; Vyas et al., 2018). Diseases that were once suppressed are now reemerging. An illustration of this phenomenon is the current measles outbreak in the United States. From January 1 to June 20, 2019, there were 1,077 confirmed cases of measles in 28 states (CDC, 2019). These cases are primarily attributed to unvaccinated individuals (Lindberg et al., 2015). Shen and Dubey emphasized the importance of herd immunity, meaning adequate vaccination rates. This type of immunity is required to avert direct transmission of infectious disease.

Considering the integral role vaccines have in reducing morbidity and mortality rates, it is crucial to examine the perceptions of vaccine-hesitant parents on healthcare, how their experiences have influenced their decision-making, and what prevents them from vaccinating their children. Numerous researchers have approached vaccine hesitancy with strategies to counter the beliefs of the individuals through myth correction and information dissemination (Bednarczy, 2018; Vyas et al., 2018). Bednarczy (2018) accentuated that these strategies are ineffective and often fail to improve vaccination rates. Mohanty et al. (2018) indicated that limited literature exists on successful interventions that reduce parental vaccination hesitancy. There is a gap in the literature regarding vaccine-hesitant parents' perceptions of healthcare (Bednarczyk, 2018; Hornsey, Harris, & Fielding, 2018; Mohanty et al., 2018; World Health Organization, 2019). Without knowledge of the perceptions parents have that prevent them from supporting vaccination, healthcare providers cannot generate effective strategies to improve vaccinations rates. The World Health Organization (2018) prioritized vaccination acceptance and compliance as a top priority for reducing vaccine-preventable death. Nurses are an essential factor in guiding parental vaccine decision-making (Mohanty et al., 2018). An assessment of the perceptions of vaccine-hesitant parents and why they chose not to vaccinate their children can assist healthcare providers in demonstrating a respectful understanding of parents' views, which then might lead to parental acceptance of vaccination and improved immunization rates.

To address the gap in the literature on how vaccine-hesitant parents perceive healthcare, I examined the perceptions of adults who have an aversion to vaccinations as a preventative healthcare intervention. I was especially interested in examining parents' perceptions of their healthcare experiences, how their experiences influence their healthcare decisions to vaccinate their children, and how this group perceives the current strategies promoting vaccinations for their children. Participants were from a large Midwestern city in the United States. Findings from this study may assist researchers and healthcare providers in creating individualized and efficient strategies to lessen the mistrust between vaccine-hesitant parents and healthcare providers and hopefully increase immunization compliance. Implementation of these strategies may improve vaccination rates and decrease childhood illness and morbidity.

In this chapter, I will review the literature regarding the current state of VPD, perceptions of vaccine hesitancy, and strategies for promoting vaccinations. The chapter begins with an overview of the literature search strategy and the theoretical foundation for the study. The literature review follows. The chapter concludes with a summary of key points and a transition to Chapter 3.

Literature Search Strategy

The primary electronic database providers used to conduct the literature review were EBSCO and ProQuest. Using their databases, I was able to access online journals and books to integrate into my literature review. The literature searches focused on the vaccine hesitancy and the antivaccination movement. I found vaccine statistics and recommendations using Walden University Library resources including CINAHL, ERIC, PsychINFO, and Google Scholar. The search limitations used to focus the search results consisted of English language, peer-reviewed articles and books and full-text publications. A majority of the literature included in this study was from 2014-2019. Depending on the results, certain aspects such as publication dates and full-text were expanded or contracted. The key words selected for my search were derived from my research questions. Related terminology and additional terms were identified from concepts in my study and added in the literature review. The search terms used in the initial search were *vaccine hesitancy*, *vaccine refusal*, *antivaxxers*, and *healthcare experience*. To further refine my search, I used the thesaurus inside PsycINFO to identify synonyms and alternative terms for my dissertation concepts. Additional search terms included *vaccine related deaths, antivaccination movement, health attitudes, decision making*, *immunization,* and *health promotion*.

Theoretical Foundation

The theoretical framework for this research study was the TRA (Ajzen & Fishbein, 1980). This theory was appropriate for addressing the problem of unvaccinated individuals considering it has been successfully applied to understand and explain behaviors (Bednarczyk, 2018). This framework is a traditional health promotion model that focuses on one’s access to information regarding the risks and benefits of interventions and the outcomes they prevent (Bednarczyk, 2018). TRA originated in the late 1960s from the social psychology field. Martin Fishbein, a prominent social psychologist, conceptualized an association between beliefs, attitudes, and intentions (Sharma, 2007). Fishbein derived the foundation for this connection between beliefs and attitudes from Dulany’s work on the theory of propositional control (Boster, Shaw, Carpenter, & Massi-Lindsey, 2014). In the 1970s Fishbein and Icek Ajzen collaborated to create the foundation for the TRA (Sharma, 2007). TRA assumes that the decision-making process is a rational process (Ajzen & Fishbein, 1980). Individuals associate attitudes, beliefs, and purpose to behavior (Bednarczyk, 2018). Adhering to the principals of TRA would lead to the conclusion that individuals’ actions are based on their beliefs and attitudes.

There are four primary constructs of TRA: intention to perform the behavior, attitudes, subjective norms, and external variables (Sharma, 2007). TRA asserts that an individual’s behavior is determined by their intention to perform the behavior and the intention is a derivative of one’s attitude towards a behavior (Models and Mechanisms of Public Health, 2019). The simplification of TRA led to a more practical use of the theory in various fields. TRA continued to gain recognition among researchers and practitioners in the 1980s. Sheppard, Hartwick, and Warshaw (1988) conducted a meta-analysis which discovered the strong predictive utility of TRA. Some researchers including Professor Icek Ajzen perceived that the TRA had deficits in explaining behaviors, resulting in the formulation of a new construct. This construct is known as the concept of perceived behavioral control, which then lead to the formulation of the Theory of Planned Behavior (TPB) (Ajzen, 1991).

Application of Theory in Previous Studies

According to Wong and Chow (2017), TRA is often utilized in research to examine attitudes, intention, and health-related behaviors. TRA is applicable to any field investigating behaviors and attitudes. In the realm of nursing, TRA has been frequently utilized to describe and predict health behaviors. Albarracin, Johnson, Fishbein, and Muellerleile (2001) examined how well TRA predicted condom use in a sample of 22,594 participants. Condom use was derived from intentions, attitudes, subjective norms, and behavioral beliefs. The study results indicated that TRA is highly successful in predicting health behaviors. TRA has been applied in the area of health promotion to understand why people make the decisions they do. In 2011 Doswell, Braxter, Cha, and Kim examined early sexual behavior among female African American teens. In a sample of 198 middle-school girls, intention was identified as a significant predictor of early sexual behavior. Those with permissive attitudes were most likely to engage in early sexual behavior. TRA correlates with my study, considering it can be used to predict one's intention to vaccinate.

In addition, the successful application of TRA was used to understand and explain teen pregnancies within American Indian communities (Dippel, Hanson, McMahon, Griese, & Kenyon, 2017), to ascertain how acculturation influences alcohol use among Latino youth (Lorenzo-Blanco et al., 2016), to determine university lecturers' intention to adopting problem based learning (Barman & Barman, 2016), to understand the attitude-behavior inconsistencies among Hong Kong natives regarding organ donation (Wong & Chow, 2017), to predict students' intentions for academic cheating (Chudzicka-Czupała, et al., 2016), to examine the beliefs and attitudes associated with hookah smoking among U.S. college students (Martinasek, Haddad, Wheldon, & Barnett, 2017), predictors of college students' intention to engage in bystander intervention of sexual assault (Lukacena, Reynolds-Tylus, & Quick, 2019), and to determine the impact of a cyberbullying video prevention program for college students (Doane, Kelley, & Pearson, 2016).

Rationale for Selection of Theory and Relation of Theory to Study

It is imperative to understand factors which predict health behaviors. This understanding is the necessary first step to creating interventions to alter detrimental health behaviors. Behavioral intentions were established as a key predictor of action in various health behavior theories. This framework was chosen to examine the individual and their thought processes which affect their healthcare decision making. This study examines adults with vaccine hesitancy, and it addresses their attitudes which then affect their behaviors and intention. Wong and Chow (2017) emphasized that attitude towards a behavior is crucial in predicting behaviors. In the field of nursing. The TRA framework could assist health care providers in finding answers to a variety of behavioral health intentions, including the parent’s intention to immunize or reasons why they may not choose to immunize their children (Carracedo, 2018). The aim of healthcare is to improve the collective health of individuals, including what can be achieved through immunizations. Understanding the attitudes and behaviors in relation to nursing care is imperative to healthcare practices. It remains essential to discover the parent’s perception of healthcare and what deters them from health recommendations.

Literature Review Related to Key Variables and/or Concepts

Prevalence of Vaccine-Preventable Diseases

Research has demonstrated that vaccines are effective in saving lives. Studies have established that immunizations are beneficial and efficient methods for health promotion and disease prevention (Kubin, 2019). Yet, parents are continuing to refuse vaccinations (Kubin, 2019). VPD is reemerging. This refusal has led to decreased individual immunity and affects the community at large by reducing herd immunity. According to Kubin, decrease herd immunity resulted in an altered capacity to generate efficient antibody responses, which can affect proper immunity. Therefore, resulting in less effective vaccines and increased risk of VPD dissemination. Overall, the studies indicated that the prevalence of VPD continues to escalate worldwide, and the primary cause is related to declining vaccination rates (Kestenbaum & Feemster, 2015; Kubin, 2019).

Measles. According to Lindberg et al. (2015), the CDC accentuated the elimination of measles in the United States in 2000. Currently, the CDC no longer classifies the measles as eliminated. Since 2000, there have been sporadic outbreaks of measles totaling 911 reported cases (Lindberg et al., 2015). Phadke, Bednarczyk, Salmon, and Omer (2016) estimated that 56.8% of these cases were attributed to unvaccinated individuals. These incidents of measles continue to escalate. The CDC indicated that from January 1 to June 20, 2019, there had been 1,077 confirmed cases of measles in 28 U.S. states. Kubin (2019) asserted that 70% of these confirmed cases were attributed to unvaccinated individuals. The mumps outbreak affects a wide age range from newborns to 89 years (Kubin, 2019). Research has identified that most of these outbreaks occurred in nonmedical exemption areas where vaccination coverage is low (Kubin, 2019). The literature has established the resurgence of measles in the United States.

Pertussis. Pertussis is a highly contagious respiratory illness commonly occurring in the United States. Since the 1970s, there have been sustained outbreaks of pertussis (Kubin, 2019). Kubin estimated from 1977 to 2015 a total of 32 outbreaks affect 10,000 people. The most significant outbreaks occurred in 2015 and 2016, when a total of 38,000 individuals were affected, resulting in seven deaths (Center for Disease Control and Prevention, 2017; Kubin, 2019;). Phadake and colleagues study indicated that of the 38,000 affected individuals, 45% of children affected were not vaccinated. Of those affected in this outbreak, a majority of the individuals were vaccinated. Studies have identified declining vaccination rates, waning immunity, and ineffectiveness of vaccines as the most significant contributing factors to outbreaks (Center for Disease Control and Prevention, 2017; Koenig et al., 2019; Kubin, 2019; Phadake et al., 2016; Ventola, 2016; & Van Zelfden, 2018). Pertussis culminates every few years with frequent outbreaks. It is important to note that many cases go underreported. Therefore, the cases reported might be underestimated.

Mumps. A resurgence of mumps has been noted within the past decades. Historically mumps was classified as a childhood illness affecting school-aged children and college students (Shreve, McNeill, & Jarrett, 2018). Those affected by mumps are not limited to those assemblage of people. Now adolescents and adults receiving one or two doses of the mumps vaccine are now plagued with this disorder (Kubin, 2019; Shreve, McNeill, & Jarrett, 2018; & Van Zelfden, 2018). The occurrence of mumps can be attributed to waning immunity (Van Zelfden, 2018; & Ventola, 2016). One of the most substantial outbreaks of mumps occurred in 2006. Over 6,500 cases were reported in eight Midwestern states that year (Kubin, 2019). During the years of 2005 through 2010, over 560,000 cases of mumps occurred worldwide (Kubin, 2019; Shreve, McNeill, & Jarrett, 2018). Within the first nine months of 2017, over 4,000 cases of mumps occurred in 48 states (Shreve, McNeill, & Jarrett, 2018; Van Zelfden, 2018). Research has indicated that epidemic occurrences customarily occurred in locations where children and young adults congregate (Shreve, McNeill, & Jarrett, 2018). High-risk areas include schools, dormitories, and military living areas. The literature has demonstrated the prevalence and reoccurrence of mumps.

Polio. Polio was a prevalent VPD in the 1980s. There were an estimated 350,000 cases reported in 125 countries in the late 1980s (Khan, Datta, Quddus, Vertefeuille, Burns, Jobra, & Wassilak, 2018). Polio has devastating effects on the nervous system, which leads to eventual paralysis. With that in mind, it became a primary objective of the World Health Assembly to eradicate polio (Khan et al., 2018). The vaccination initiative for eradication was proven to be successful in reducing this disorder. Kubin (2019) accentuated that in 2016, there were a miniscule number of paralysis in the world from polio, and two of the three strains of polio have been eliminated worldwide. As of 2016, the wild poliovirus has been limited to three areas of the world, which includes Pakistan, Afghanistan, and Nigeria (Khan et al., 2018; Kubin, 2019). Although progress towards global eradication has continued, challenges in containing polio still occur. Countries must remain diligent to vaccinations efforts.

Varicella. Varicella, also known as the chickenpox, was a commonly occurring childhood disease. In 1996, prior to the vaccine, an estimated 11,000 individuals were hospitalized due to complications (Andrada, 2018). In 2018, an outbreak in North Carolina was noted as the largest outbreak since the creation of the vaccine (Andrada, 2018). It is important to note that the outbreak occurred in a private school where there is a high religious vacation exemption rate. This exemption left the children of North Carolina vulnerable to this VPD. The incidents of VPD are not limited to North Carolina. During 2015 to 2018, there were 89 outbreaks in the United States (Andrada, 2018; Woo 2016). Considering that the varicella vaccine resulted in a 95% reduction of the disease, it is imperative that individuals continue to receive vaccinations (American Academy of Pediatrics, 2015).

Influenza. Seasonal outbreaks of influenza occur throughout the world. In the United States, the peak flu season occurs between fall and winter. Circulating strains of influenza vary annually (Woo, 2016). In consideration of this variation, the vaccine composition is reviewed and altered each year. The vaccines are composed of the prevailing strains of influenza. According to the CDC, the last noted pandemic outbreak occurred during 2009-2010, an estimated 89 million individuals were infected with H1N1 (as cited by Woo, 2016). The H1N1 strain claimed an estimated 8,870 to 18,200 lives in the United States (U. S. Department of Health and Human Services, 2015). Influenza symptoms range from mild to severe. According to the World Health Organization (2018), hospitalizations and deaths can occur in high-risk groups. Annual epidemics result in three to five million cases of severe illness and an estimated 290,000 to 650,000 respiratory deaths (World Health Organization, 2018). The studies have indicated that although there are vaccinations, the wide variations of influenza strains cause frequent outbreaks of influenza. It is essential to receive vaccinations considering it results in herd immunity which prevents epidemics of VPD.

Meningitis. Meningitis outbreaks are particularly concerning considering there are 13 known serotypes (Woo, 2016). The complications of this VPD are severe, occurring within hours of the disease. Complications include limb ischemia, coagulation, vascular shock, coma, and death (Woo, 2016). In 2014, several outbreaks of meningitis occurred throughout the United States in various college campuses, which include New

Jersey, California, and Oregon (Woo, 2016). Worldwide outbreaks were reported in New Zealand, France, sub-Saharan Africa, South America (Woo, 2016). Soeters et al., (2019) conducted a review to examine the outbreaks of meningitis. The study indicated that during 2013-2018, 10 university outbreaks occurred in seven U.S. states, totaling 39 reported cases affecting over 35,000 undergraduate students (Soeters et al., 2019). As other studies have indicated, vaccination is the main strategy for preventing meningitis. Individuals who do not receive the vaccine are at higher risk for contracting meningococcal disease (Soeters et al., 2019; Woo, 2016).

Attitudes, Perceptions, and Beliefs Regarding Vaccine Hesitancies

An increasing number of parents are refusing to vaccinate their children. According to Hough-Telford and colleagues (2016) in 2006, 74.5% of pediatricians reported parental refusal of vaccinations, while in 2013, the percentages of vaccine refusal increased to 87%. The survey by Hough-Telford and colleagues indicated that pediatricians are noting a rise in the number of parents requesting the delay of one vaccination dose. The statistics indicate that one in five parents are requesting delays in more than one vaccination (Hough-Telford et al., 2016; Kubin, 2019). The numbers of vaccine hesitancy and delay continue to escalate. Collectively, the literature demonstrates a rise in vaccine hesitancy and delay (Bedford et al., 2018; Bednarczyk, 2018; Carracedo, 2018; Hough-Telford et al., 2016; Kubin, 2019). All strategies to address vaccine hesitancy must be based on the priorities and needs of a given population (Carracedo, 2018). Therefore, healthcare providers must gain further knowledge to assist in decreasing the number of vaccine hesitancy incidences.

The vaccine decision-making process is largely influenced by one’s access to vaccine information or misinformation (Kestenbaum & Feemster, 2015). Parents are receiving a plethora of messages regarding vaccinations. As parents continue to receive a multitude of messages, it becomes increasingly difficult to discern which information is pertinent, considering that a majority of these messages are often contradicting. The contradiction of information often results in perplexed health consumers. Kestenbaum and Feemster emphasized that it is important to note that all the information adults receive is not accurate and is the main contributor to misconceptions regarding vaccinations. Dube, Vivion, and MacDonald (2015) reported that incidents of VPDs continue to escalate and can be correlated with media coverage emphasizing negative stories about vaccine safety. Research studies have demonstrated that parents who are insufficiently informed about vaccines and VPDs often demonstrate distrust and negative attitudes towards healthcare provider recommendations (Dube, Vivion, & MacDonald, 2015; Kestenbaum & Feemster, 2015). Thus, it is imperative that accurate information is provided to individuals. This strategy improves knowledge and is an essential strategy for reducing vaccine hesitancy. The methods by which information is presented is significant. Overall, researchers recommend that information is presented in alignment with one’s beliefs.

The rapid dissemination of information regarding vaccine and inconsistent messages regarding vaccines can diminish trust in vaccines and healthcare providers. There are various factors which can determine trust. Kestenbaum and Feemster noted that the trustworthiness of entities impacts the credibility of information perceived by individuals. For example, parents often seek vaccination information from trusted resources. Information from entities such as pharmaceutical companies is often viewed as less credible and with skepticism considering these companies profit from vaccination sales (Kestenbaum & Feemster, 2015). Eller, Henrikson, and Opel (2019) conducted a study to assess the association of a mother's trust in their healthcare provider and their use of alternative sources for vaccine information. The study results implied that 95% of participants trusted their pediatricians and utilized them as a source for vaccinations. However, pediatricians were not the only sources for vaccination information. Additional resources used by participants included the internet, family and friends, other parents, other medical professionals, and alternative medicine providers (Eller, Henrikson, & Opel, 2019).

A minuscule number of parents have direct experiences with VPDs. Some who are vaccine hesitant attribute the decline of VPDs to factors other than vaccinations. Some perceive that VPD were disappearing before the use of vaccines (Ventola, 2016). Kestenbaum and Feemster indicated that vaccination utility is based on parents' perception of the perceived risk of VPD. Certain parents consider their children to have a minimal risk for contracting VPD. These perceptions can be attributed to the fact that certain diseases are not prevalent and that their family lives a considerably healthy lifestyle (Kubin, 2019; McKee & Bohannon, 2016). Kubin and Ventola examined vaccine hesitancy and attribute vaccine hesitancy to the widespread success of immunization. Immunizations are responsible for the decline and historically low levels of VPDs (Ventola, 2016). Younger parents remain unaware of the potential health dangers associated with VPD (Kubin, 2019; McKee & Bohannon, 2016). Thus, the success of immunizations provides false reassurance to parents, fostering the concepts of low probabilities of disease susceptibility.

Exemptions. In the United States, all 50 states have specified legislations regarding vaccines for students. It is important to note that exemptions vary from state to state. School immunizations laws permit exemptions for medical reasons, religious objections, and philosophical exemptions (National Conference of State Legislatures, 2019). Currently, there are 45 states including Washington D.C. which permit religious exemptions, applying to all vaccines (Kubin, 2019; Kestenbaum & Feemster, 2015, National Conference of State Legislatures, 2019; & Ventola, 2016). Presently, 15 states are permitting philosophical exemptions from vaccinations, including Oregon, Idaho, Utah, Arizona, Colorado, North Dakota, Oklahoma, Texas, Arkansas, Minnesota, Louisiana, Wisconsin, Michigan, Ohio, and Pennsylvania (National Conference of State Legislatures, 2019). A philosophical exemption is defined as a restriction based on moral, philosophical, and other personal beliefs (National Conference of State Legislatures, 2019). Imdad and colleagues (2013) indicated the rising prevalence of religious exemptions. Specifically, from 2000 to 2011, there was a noted increase of 0.45% (Imdad et al., 2013). The studies implied that in areas with religious exemptions, there is a higher incidence of pertussis seen in non-vaccinated groups (Imdad et al., 2013; Kubin, 2019; & McKee & Bohannon, 2016). Children with exemptions are 14 times more likely to acquire a VPD (Kubin, 2019).

There is an association between exemptions and the resurgence of VPDs (Bradford & Mandich, 2015; Phadake et al., 2016). Phadake and colleagues conducted a study to improve the understanding between vaccine exemptions and the epidemiology of VPDs. To examine the association between the vaccine exemptions and the epidemiology of VPDs, a secondary analysis was conducted on 18 published studies. The study review revealed that 70.6 percent of measles cases had nonmedical exemptions and that states which permitted allowanced for exemptions policies had higher incidence rates of pertussis (Phadake et al., 2016). Likewise, Bradford and Mandich (2015) approached the problem of vaccine exemption and epidemiology of VPDs through secondary analysis of kindergarten vaccination exemption data from the CDC annual school assessment reports. Bradford and Mandich's study found a correlation between exemption laws and the incidence of VPD. This study suggested that states with an effective portfolio of exemption policies had a lower incidence of pertussis. Therefore vaccine exemptions policies are pivotal in reducing VPDs.

The sporadic VPD outbreaks are drawing attention to vaccine exemptions. Although exemptions are permitted in various states, a small but growing number of children aged 24 months and below remain unvaccinated (Dryer, 2018; Kuehn, 2018; & Ventola, 2016). According to the CDC's 2017 National Immunization Survey of childhood vaccination vaccine coverage for children in the United States remains relatively high with more than 90% receiving the recommended doses (Hill et al., 2018). However, the percentage of children with vaccination exemptions under 24 months has grown from 0.9% in 2011 to 1.3% in 2015 (Hill et al., 2018). Vaccination exemption rates vary from state to state, ranging from 0.1% to 7.6% (Kuehn, 2018). For the numbers of exemptions to remain relatively low, continued evaluations of prevalence and reasons for non-vaccination is required. An increasing number of states with exemptions now require challenging exemption requirements which might further deter parents from vaccination exemptions (Phadake et al., 2016).

Safety concerns. Vaccine-related factors such as vaccine safety, vaccine efficacy, and disease susceptibility are significant influences on vaccine hesitancy (Vyas et al., 2018). In a recent survey of 13,000 parents, the most commonly cited hindrance to vaccination were concerns regarding side effects (Ventola, 2016). Likewise, McKee and Bohannon attributed safety concerns as the primary reasons for vaccine hesitancy and refusal. The research studies concur that the internet and social media reports have escalated parent's impressions that children are more likely to acquire infectious diseases or neurological disorder deficits such as attention deficit hyperactivity disorder or autism if they vaccinate their children (Kubin, 2019; McKee & Bohannon, 2016; Ventola, 2016). Regardless of the vaccine information sources, the constant bombardment of information is overwhelming to parents. Mckee and Bohannon reported results consistent with the finding from Ventola's study. Both study results indicated that as fear increases, so does the raised doubts of short-term adverse reactions and the potential for long-lasting adverse effects. Vyas et al. and Ventola recommended addressing misperceptions immediately and strategically by collaborating with public health officials, professional organizations, and healthcare providers. A collaborative approach from multiple resources advocating the same message can assist in reassuring parents of the safety of vaccines.

Another pertinent concern of parents is the ingredients which compose vaccines. In Swaney and Burns (2018) study, the risk associated with vaccines was emphasized as a leading cause of vaccine-hesitancy. Although providers distribute general information on vaccine side effects, vaccine contents are often not disclosed. The parent participants in Swaney and Burns's study believed that vaccine content disclosure could provide reassurance of safety which parents are seeking. Healthcare providers had a different perspective on vaccine content disclosure. The healthcare providers in Swaney and Burns study doubted that having knowledge of the vaccine contents would benefit skeptic parents. This knowledge is not beneficial, considering parents customarily are unaware of the range of safe amounts, what the ingredients are, and what they do (Swaney & Burns, 2018). Common aggregates found in vaccines include aluminum, formaldehyde, monosodium glutamate, and thimerosal (CDC, 2018b; CDC, 2018d; Vyas et al., 2018). These ingredients have the potential to cause fear considering they are harmful ingredients. To address the potential concerns associated with these ingredients, parents must be appropriately educated on the purpose of these ingredients. The Center for Disease and Control indicated that to ensure potency, sterility, and safety companies are required to add minute amounts of chemical additives. Another imperative purpose of chemicals is to inactivate viruses or bacteria, which assists in stabilizing the vaccine.

Additionally, parents have cited the incidence of experienced side effects as a deterrent. Annually there are 30,000 vaccine-associated events (VAE) reported, of these occurrences, 13% consists of hospitalization, compromising disability, illness, or death (Shapiro, 2016). Although these VAEs are alarming, it is important to note that an abundance of these incidents are classified as mild, including fever, irritability, and local site reactions (Shapiro, 2016). Research studies have revealed that vaccine refusal originates from the fear of dangerous vaccine side effects such as Guillain-Barre Syndrome (GBS), long-term seizures, coma, and permanent brain damage (CDC, 2018a; Shapiro, 2016; Vyas et al., 2018). GBS is a serious VAE involving paralysis of the muscles. In GBS, the immune response is triggered, destroying myelin and axons, resulting in scar tissue (Shapiro, 2016). If left untreated GBS will result in paralysis of the breathing center requiring mechanical ventilations (Shapiro, 2016).

There has been much controversy regarding whether or not vaccinations cause long-term effects such as seizures in infants and children. This concept is particularly concerning for parents since the Diphtheria, Tetanus, and acellular Pertussis (DTaP), Measles, Mumps, and Rubella (MMR), and the Varicella list long-term seizures as a potentially severe side effect of vaccines (CDC, 2018c). Verbeek and colleagues (2014) implied that the causative claims by anti-vaccination lobby groups of long-term seizures is gaining awareness and further incepting concern in the minds of anxious parents. Verbeek and associates study on the incidence, course, and etiology of epilepsy with vaccination-related seizure in a cohort of children revealed that one-third of the 990 participants had a preexisting condition called Dravet syndrome. Individuals with this syndrome presented with seizures 40 hours after receiving vaccinations. Dravet syndrome is a severe developmental epileptic encephalopathy with infantile-onset, which predispose children to seizures (Verbek et al., 2014). To study epilepsy and its association with seizures, Lateef, Johann-Liang, Himanshu, Hasan, Williams, Caserta, and Nelson (2015) examined the demographic and clinical characteristics of children who claims were filed with the National Vaccine Injury Compensation Program. Similar to Verbeek and colleagues (2014) claims Lateef et al. (2015) and Scheffer (2015) studies found preexisting conditions and abnormal neurological findings such as tuberous sclerosis, and cerebral dysgenesis, which can cause epilepsy. Therefore, future studies must include genotyping to determine pretexting conditions and to enhance public confidence in vaccinations.

Determinants of Vaccine Hesitancy

Inadequate vaccine information was indicated as a primary cause for vaccine hesitancy. Parents frequently expressed the need for additional information. Mckee and Bohannon (2016) and Ventola (2016) studies agree that the lack of vaccine information has resulted in the concept that vaccines are not recommended or necessary. Kubin (2019) study cited a lack of vaccination knowledge as a primary barrier, resulting in a parent’s indecisiveness. Mckee and Bohannon study results revealed that one-third of participants surveyed did not have sufficient vaccine information. Those parents implied that they found it challenging to communicate their needs to their healthcare providers, which resulted in a lack of necessary information. Bedford and colleagues (2018) discussed how one’s ability to comprehend language and health literacy affect the uptake of vaccinations. Researchers suggested that the quality of information delivery such as cultural appropriateness can have a profound effect on a parents’ decision to vaccinate children (Bedford et al., 2018; Bednarczyk, 2018). Studies show that if the delivery of vaccine information does not demonstrate cultural sensitivity than antivaccination attitudes frequently are the result (Bednarczyk, 2018; Hornsey et al., 2019).

A large number of injections that are recommended are particularly concerning to parents. The abundance of injections often deters parents from complying with the recommended immunization schedule (Ventola, 2016). ACIP is an assemblage of medical and public health experts who generated recommendations on the use of vaccines for the United States (CDC, 2018b). The current ACIP vaccination schedule recommends 22 injections to combat 10 VPDs which include hepatitis B, diphtheria, tetanus, pertussis, haemophilus influenza type b, polio, influenza, pneumonia, measles, mumps, rubella, varicella, and hepatitis A (CDC, 2018b). If one follows the ACIP recommended guidelines, these immunizations would be fully received by 15 months of age. Infants have the potential to receive as many as nine different injections in a single visit (CDC, 2018b; Ventola, 2016). Trends demonstrated that increase complexities in vaccination regimens frequently resulted in a decline in vaccination compliance (Ventola, 2016). An additional fear that parents have is that the immunizations could overwhelm the immune system, resulting in comorbidities such as asthma an autoimmune disorders (Kubin, 2019; Ventola, 2016).

Another contributor to vaccination compliance is socioeconomic status. Those individuals with financial difficulties might lack adequate access to healthcare (Ventola, 2016). Hardships may be encountered for various reasons, including divorce, job loss, and additional financial difficulties. Single parents are often overworked, fatigued, and are unable to keep up with well-child visits (Ventola, 2016). A majority of these groups are qualified for Medicaid insurance. However, most do not know they are qualified. Another imperative factor to consider is difficulties regarding transportation and inconvenient clinical hours. For example, most primary care physician office hours are from 8 am to 5 pm. For single parents, planning for well-visits might include busing, taking time off work, and planning for childcare. Considering that this group of people is frequently the primary source of income, the cost of one day's wages might not outweigh the need for well-checks and updated vaccination.

Healthcare provider communication methods have the potential to skew vaccine-hesitant parents' perceptions. Opel, Mangione-Smith, Robinson, Heritage, DeVere, and Salas (2015) emphasized that provider-parent communication is a critical component in the decision to vaccinate children. In general, some guidelines have been disseminated for providers to use with vaccine-hesitant parents (Connors, Slotwinski, & Hodges, 2017; Fuzzell et al., 2018; Gillespie, Kelly, Duggan, & Dornan, 2017; Opel et al., 2015). However, minimal data has been gathered to determine the effectiveness of specific vaccine communication strategies (Opel et al., 2015). Opel and colleagues conducted a cross-sectional observational study to investigate how communication behaviors influence vaccine acceptance and visit experience. The research showed that there is an inverse relationship between acceptance and visit experience, meaning that presumptive formatted dialogue increases acceptance but decreases visit experience. When providers communicate supportive emotions such as empathy, compassion, understanding, and sympathy, this increases mutual trust and respect (Connors et al., 2017; Gillespie, Kelly, Duggan, & Dornan, 2017). Fuzzell and colleagues (2018) study supported these findings, indicating a positive association between supportive conversation and adherence to vaccination guidelines. Therefore, it is imperative to ensure that provider communication demonstrates mutual trust and respect.

Strategies to Address Vaccine Hesitancy

The topic of vaccines can be an arduous topic to address with parents. Healthcare providers must find effective strategies to address vaccine hesitancy. Understanding the perceptions and motivation for vaccine delay or refusal is a necessary first step. Addressing vaccine hesitancy is a daunting task due to the complex nature of this issue. Eskola, Ducos, Schuster, and MacDonald (2015) implied that no single intervention strategy could address the various concerns associated with receiving vaccinations. Immunization programs generated to deal with vaccine hesitancy are still in the development phase. Limited programs and measures such as public health communication, educational tools, information pamphlets, communication interventions, have been shown to be effective in reducing vaccine hesitancy in specific populations (Butler & MacDonald, 2015; Dube, Gagnon, MacDonald, 2015; Jarret, Wilson, O’Leary, Eckersberger, & Larson, 2015; Nowak, Gellin, MacDonald, & Butler, 2015). Studies accentuated the importance of identifying the determinants in hesitant subgroups (Butler & MacDonald, 2015; Dube, Gagnon, MacDonald, 2015; Jarret, Wilson, O’Leary, Eckersberger, & Larson, 2015; Nowak, Gellin, MacDonald, & Butler, 2015). Research studies suggested initiating interventions by gaining a collective understanding of the population subgroups and determining the root causes of hesitancy (Bednarczyk, 2018;

Eskola, Ducos, Schuster, & MacDonald, 2015). The identification and understanding of root causes can assist healthcare providers in tailoring evidence-based strategies to suit individuals.

The literature suggested that attempts to convince people of the value of vaccine through knowledge sharing and evidence often fails to improve intention to vaccinate (Bednarczyk, 2018; Nyan, Reifler, Richey, & Freed, 2014; & Witteman, 2015). Such approaches can lack respectful communication and lead to a perception of belittlement. According to Witteman (2015), many individuals are reluctant to share their viewpoints on vaccine hesitancy due to harsh criticisms and negative feedback. Instead of questioning perceptions and values, healthcare providers should initiate discussions to focus on what is important to individuals and provide tools which can assist in the decision-making process. Research trials have demonstrated that patient decision aids support decision-making by providing information, assisting people to clarify values, and guiding them through the decision-making process (Witteman, 2015). When providers consider and demonstrate respect for values and collaborate with individuals versus dominating healthcare decisions, this results in increasing compliance. An example of a study showing the efficacy of patient decision aids includes Shourie et al. (2013) study on web-based aids. These researchers conducted a cluster randomized control trial. The study illustrated how web-based self-administered decision aid is more efficient than traditional information pamphlets in improving vaccination rates. The web-based decision aid led to an immunization rate of 100% compared to a rate of 91% for individuals who received an information pamphlet.

Initiating discussions early on is imperative to the success of vaccination rates. The ideal time to intervene for providers is during prenatal appointments (Cunningham et al., 2018; Shen & Dubey, 2019). A mixed-method study indicated that parents who delay or refuse vaccines begin to consider their options in regards to vaccinations prior to their child’s birth (Glanz et al.et al., 2013). Early parental vaccination education has been proven to improve maternal knowledge. To address parental concerns about vaccinations, researchers conducted a randomized control trial to determine the effectiveness of prenatal parental vaccination education on enhancing knowledge and adherence to the recommended vaccination schedule. Hu and colleagues (2017) study observed significant improvements in vaccination knowledge in the intervention group, along with significant timeliness of the vaccination schedule. This study concluded that early interventions improved vaccination rates. A similar study by Saitoh and colleagues (2017) investigated the effects of perinatal immunization education. The cluster-randomized control trial of pregnant women in Japan showed benefits from a stepwise education intervention. The education intervention consisted of three one-on-one interactive educational sessions during the prenatal period, postpartum period, and at the one month well-baby checkup. Specifically, the intervention group in this study demonstrated higher rates for vaccination compliance compared to the control group (Saitoh et al., 2017). Prenatal and postnatal appointments provide ample times for providers to give parents credible resources, websites, and tools to assist in the decision-making process of vaccinations.

Building rapport is the foundation for a provider and patient relationships. Rapport is essential for constructing connections, increasing compliance, and improving patient care. The creation of rapport permits healthcare workers to understand the viewpoints and feelings of patients, which results in enhanced communications and trust. Connors et al. (2017) review identified trust in providers as a major contributor to ensuring vaccine compliance. In addition, Glanz et al. (2013) determined that deficient trust and confidence in physician recommendations were often present in parents with vaccine hesitancy. Therefore, establishing rapport and trust is necessary to promote vaccinations. According to Benin et al. (2006), the theme of trust in medical professions was a central concept for parental decision-making. Trust in the pediatrician, satisfaction with vaccination discussions, and demonstrating respect for patients beliefs contributed to promoting vaccines (Benin et al., 2006). The literature demonstrated that rapport, established trust, and provider-patient relationships were pivotal for the decision-making process of vaccinations. Strategies must focus on developing trust and positive relationships.

Individualized educational practices enhance patient satisfaction and treatment outcomes. Mohanty and colleagues conducted semi-structured interviews on pediatric practices to understand how they handled parental vaccine hesitancy. The study illustrated how individualized tailored counseling addressed parental concerns, this approach was an effective strategy to increase vaccination compliance (Mohanty et al., 2018). Providers must consider the various facets of patients, such as age, gender, culture, educational level, and personality (Moore, 2016). With these differences in mind, providers should approach vaccine hesitancy with individualized strategies. Moore implied that patient-focused approaches and individualized strategies establish trust and encourage the patient to participate in care actively, increasing patient vaccination compliance. Furthermore, disease prevention groups such as the World Health Organization and Europe Vaccine Preventable Disease and Immunization formulated the Tailoring Immunization Program (TIP) to enhance individualized educational practices (Butler & MacDonald, 2015). TIP has been successfully applied in areas such as Sweden, Bulgaria, and the United Kingdom to diagnose causes of vaccine hesitancy and developed targeted inventions for subgroups with low vaccination compliance rates (Butler & MacDonald, 2015). Butler and MacDonald’s study highlighted how context focused materials specialized for subgroups improved vaccine uptake. Collectively, the literature showed the significance of customized interventions and practices.

Jarret, Wilson, O’Leary, Eckersberger, and Larson (2015) emphasized that the most effective interventions employed the use of various strategies. The most successful interventions noted by their study includes directly targeting unvaccinated populations, increasing vaccination knowledge and awareness, improving access and convenience to vaccinations, and engaging religious or influential leaders to promote vaccination. Although determinants such as lack of adequate access to healthcare were identified as a significant barrier to immunizations, Jarret and colleagues study implied that interventions focusing on quality improvement such as extending clinic hours were the least successful. With the rapid dissemination of information through internet platforms, strategies should target online and social media to improve parent’s vaccination perceptions. Daley, Narwaney, Shoup, Wagner, and Glanz’s (2018) study assessed whether internet-based platforms improved parents’ vaccine-related attitudes. This study employed a randomized control trial in a large healthcare organization. The study showed that internet-based platforms led to significant improvements in attitudes among vaccine-hesitant parents. Specifically, self-efficacy increased while concerns about risk decreased (Daley et al., 2018).

Approaches to Studying Vaccine Hesitancy

There were numerous methods researchers used to approach the problem of vaccine hesitancy. Examples of approaches include participatory action research, survey methods, interviews, and pilot studies. Limitations noted from the participatory action research and pilot studies consist of time limitations. Considering these approaches were not over a sustained period, it was not plausible to investigate the issues comprehensively. The length of the study impacts the validity of study findings and also effected sample sizes (Eby, 2017). If there were no time constraints, and additional time allocations for the interviews and surveys, this would have enabled the discussions to evolve naturally, which elicits richer data and permitting in-depth explorations. The sample size from most studies limited the studies generalizability and transferability (Connors et al., 2018; Connors et al., 2017; Eby, 2017). When the study samples are primarily homogenous, limited to a discrete geographical location, and consists of a small participant group there is a higher risk for response bias and under-sampling of vaccine-hesitant parents (Connors et al., 2018; Connors et al., 2017). Examining a broader scope of participants across more geographical locations would be advantageous and improve transferability and generalizability (Patton, 2015).

The survey method was used in some studies for this literature review (Cunningham et al., 2018; Dilshani, Navin, Largent, & McCright, 2018; Gilkey et al., 2014). Advantages to this method include cost-efficiency through electronic mediums, administration through remote platforms preventing geographical dependence, and permitted access to groups who might be challenging to access using alternative channels (Patton, 2015). Dilshani and colleagues mentioned that online surveys provide a practical way for enlisting participants from a broad cross-section of the general public. Gilkey and associates concurred that this strategy is substantiated when researchers wish to obtain a national representation of participants. There are limitations associated with this method, primarily the inflexible nature of this approach (Patton, 2015). Questions must be well thought out to provide rich data, considering the research does not have the ability to revise questions. There are no additional opportunities for researchers to further probe, considering surveys are standardized. It can be challenging to ask questions about anything other than general questions which a broad range of participants can understand. Validity is the primary issue with this approach because it does not permit researchers to examine the topic being explored comprehensively (Patton, 2015). Questions utilized for this study are noted in Appendix A.

A few studies approached the issue of vaccine hesitancy through secondary data analysis (Bradford & Mandich, 2015; Jarret, Wilson, O'Leary, Eckersberger, & Larson, 2015; & Phadake et al., 2016). There are some noted advantages of secondary analysis which include the expedition of the data collection phase of research, fewer risk and ethical concerns with topics involving vulnerable participants or sensitive topics, and the cost of acquiring data is customarily lower than creating new data (Patton, 2015). This approach examines existing data, which is not primarily collected to address particular research questions or hypothesis (Patton, 2015). Often secondary data is specified for some purpose other than researcher's study. According to Cheng (2014), data collected for secondary analysis is customarily not collected for all population subgroups of interest or all geographic regions of interest. Bradford and Mandich noted that a result of their selected sampling method only selected students were chosen instead of the entire student population, which limits the studies generalizability. Another limitation of this method is to ensure the confidentiality of respondents, publically variables datasets usually omit identifying variables such as demographic information (Cheng, 2014). This information might be essential for intended analysis. For example, if the age of respondents is omitted, there is no guaranteed way of generalizing study findings to a particular age group. This omission can create residual confounding when omitted variables are crucial covariate to control for in the secondary analysis (Cheng, 2014).

A few studies utilized for this literature review adopted a phenomenological study paradigm to investigate vaccine hesitation (Swaney & Burns, 2019; Zewdie, Letebo, & Mekonnen, 2016). This design is suitable for my research as it allows detailed investigation, exploration, and understanding of the various issues contributing to vaccination hesitancy (Patton, 2015). The phenomenological approach describes the subjective realities of events as perceived by the study participants (Zewdie, Letebo, & Mekonnen, 2016). Thus, permitting the researcher to obtain a first-person viewpoint of the study subjects (Patton, 2015). The results of this approach might expose misconceptions about vaccine hesitancy, which may prompt action or challenge pre-conceived concepts of vaccine-hesitant parents (Swaney & Burns, 2019). This approach requires participants to articulate their thoughts and feelings regarding the study topic. Data might be limited if the subjects have difficulty expressing themselves due to language barriers, difficulties in understanding the questions, and limitations in cognition (Patton, 2015). To address these limitations for this study, individuals who are incapable of elucidating understanding of the different points of discussion will be excluded. Another imperative limitation to note with phenomenology is the potential for researcher bias, considering this approach requires researcher interpretation. Researcher bias can be difficult to identify and determine. To reduce the potential of research bias, it will most likely require collaboration and review with colleagues, which can be time-consuming and laborious (Patton, 2015).

Summary and Conclusions

The literature review for this study has demonstrated that an array of studies have been conducted focusing on vaccination hesitancy (Bedford et al., 2018; Bednarczyk, 2018; Carracedo, 2018; Hough-Telford et al., 2016; & Kubin, 2019). Additionally, the studies reviewed for this literature review have examined vaccine preventable disease resurgence, perceptions regarding vaccine hesitancy, determinants of vaccine hesitancy, recommendations for strategies to address vaccine hesitancy, and the theory of reasoned actions (Andrada, 2018; Bedford et al., 2018; Bednarczyk, 2018; Carracedo, 2018; CDC, 2017; Hough-Telford et al., 2016; Kestenbaum & Feemster, 2015; Khan et al., 2018; Koenig et al., 2019; Kubin, 2019; Lindberg et al., 2015; Phadake et al., 2016; Shreve, McNeil, & Jarret, 2018). These facets were examined to gain a further understanding on the why adults are against vaccinating their children.

There are various reasons why the perceptions of vaccine-hesitant parents regarding their healthcare experiences, how their experiences influence their healthcare decisions to vaccinate their children, and how this group perceives the current strategies promoting vaccinations for their children are not being evaluated. The first reason being that individuals with an aversion to preventative health interventions are often judged. Which most likely limited their desire to share their opinions and perceptions. Understanding the cause of hesitation address the needs of this population, and assist healthcare providers in understanding why VPD occur. There is an apparent discontinuity in the current literature on the perception of vaccine hesitant individual's perception of healthcare. I deliberated on the potential qualitative methodologies suited for my research. There are five primary strategies commonly associated with the qualitative approach which include grounded theory, ethnography, phenomenology, case study, and narrative inquiry (Patton, 2015). Ultimately, the phenomenological methodology was chosen for this study. A phenomenological approach assesses the meaning, structure, and essences of the lived experiences of individuals or a group of people (Patton, 2015). According to Patton the focus of phenomenology is to explore how human beings make sense of their experiences. This method requires the researcher to examine and capture how people experience a phenomenon thoroughly. This study intends to understand how vaccine-hesitant parents' perceive health care, specifically as it relates to their choice of immunizing their children. One's experience of healthcare can tremendously impact how they make healthcare decisions. For example, if an individual has a negative experience with a physician, this interaction might deter them from accepting the physician’s recommendations. A phenomenological approach can assist researchers in gaining a further understanding of the experiences that affect decision to vaccinate children. To address the gap in literature, a qualitative study will be utilized. Chapter three will delineate the research design, methodology, and issues to trustworthiness.

Chapter 3: Research Method

Introduction

The purpose of this study was to explore the perceptions of vaccine-hesitant parents regarding their healthcare experiences, how their experiences influence their healthcare decisions to vaccinate their children, and how this group perceives the current strategies promoting vaccinations for their children. To address the gap in the literature on how parents' perceptions of healthcare influences their decisions to vaccinate their children, I used a qualitative paradigm with a phenomenological approach. Examining the perceptions of adults who have an aversion to preventative health interventions such as vaccinations may assist researchers and healthcare providers in creating individualized and efficient strategies. An improved understanding of vaccine-hesitant parents' perceptions of healthcare may help healthcare researchers and professionals to devise strategies that might improve vaccination rates for children. In this chapter, I discuss the research design and rationale; the role of the researcher; and methodology, including instrumentation. The procedures I used for recruitment, participation, data collection, and data analysis will also be discussed. This chapter concludes with a discussion of issues of trustworthiness and ethical procedures.

Research Design and Rationale

A phenomenological design was the most suitable approach to answer the research questions, which were (a) How does healthcare experiences of vaccine-hesitant parents' influence their healthcare decisions to vaccinate their children? (RQ1) and (b) How do vaccine-hesitant parents perceive the current strategies promoting vaccinations for their children? (RQ2). I chose the empirical phenomenological approach for its focus on the human experience. In using this approach, researchers aim to obtain a comprehensive description that provides the foundation for reflective structural analysis, portraying the essences of an individual's experience (Moustakas, 1994). Instead of a researcher's interpretation of a phenomenon, this approach seeks to disclose and elucidate the experience of a phenomenon through a description of how a participant experiences the phenomenon (Moustakas, 1994).

This study encompassed the use of a semistructured interview format and interview guide to collect data pertaining to this study's research questions (see Appendix A). Use of a semistructured interview format permitted me to explore topics that developed from the interviews, which allowed me to obtain a perspicuous understanding of how participants' healthcare experiences influenced their decisions to vaccinate their children. There are four primary constructs of the TRA, which served as the theoretical framework for the study. These include the intention to perform the behavior, attitudes, subjective norms, and external variables (Ajzen & Fishbein, 1980). TRA asserts that a participant's intention to perform a behavior determines an individual's behavior and the intention is a derivative of one's attitude towards a behavior (Models and Mechanisms of Public Health, 2019). By using the TRA as a framework, I was able to assess the influence of the participants' behaviors, attitudes, subjective norms, and external variables on their vaccine decision-making. Various reasons for vaccine hesitancy/refusal have been suggested including safety concerns and a general distrust of healthcare recommendations. Specifically, attitudes and perceptions have been identified as significant influences on immunizations (Kubin, 2019; McKee & Bohannon, 2016; Ventola, 2016; Vyas et al., 2018). This study provides a deeper understanding of the antecedents of vaccine hesitancy/refusal by using a phenomenological approach to reveal how the healthcare experiences of vaccine-hesitant parents affect their decision to vaccinate their children.

I selected a qualitative design, phenomenology, instead of a quantitative one because the latter would not have permitted the development of themes. I considered but opted against using alternative qualitative designs such as grounded theory, ethnography, case study, and narrative inquiry (Patton, 2015). These approaches are used to focus on and describe individual experiences (Patton, 2015). However, they would not have effectively fulfilled the purpose of this study, which was to understand several individuals' common or shared experiences of a phenomenon (see Patton, 2015). I focused on describing what all participants have in common as they experience healthcare. According to Patton (2015), the focus of phenomenology is on exploring how human beings make sense of their experiences. This purpose aligns with understanding how vaccine-hesitant parents perceive health care. This study exploration was imperative considering how experiences of healthcare can affect how people make healthcare decisions (Vyas et al., 2018). This study has the potential to influence the development of future healthcare practices and policies.

Role of the Researcher

As the sole investigator of this study, I examined in depth how health care experiences influence decisions to vaccinate, using a phenomenological research method.

Specifically, I developed and implemented a research plan which aligned with the study’s problem, purpose, research questions, and approach. I generated an interview guide with appropriate qualitative terminology consistent with the purpose, questions, and approach (see Appendix A). Finally, I determined the study’s data collection, management, and analytical approach. The examination of vaccine hesitancy/refusal was achieved by conducting semistructured interviews on participants approved by Walden University’s Institutional Review Board (IRB), audiotaping the interviews, formulating verbatim transcriptions, creating interview notes, and producing journal notes.

The researcher determines the underlying structures of an experience, through the interpretation of the participant’s descriptions of the situation in which the experience occurs (Moustakas, 1994). The primary data consist of descriptions that are obtained through a semistructured dialogue. Subsequent to the collection of primary data, the researcher describes the structures of the experience based on reflective analysis and interpretation of the research participant’s account or story (Moustakas, 1994). The objective of the researcher is to determine the meaning of an experience for persons experiencing a phenomenon and to provide a comprehensive description of the account (Moustakas, 1994). From these individual accounts, general or universal meanings are derived, in other words the essences or structures of the experiences.

A phenomenological approach requires participants to articulate their thoughts and feelings regarding the study topic. Data might be limited and not a true reflection of participants if the subjects have difficulty expressing themselves due to language barriers, difficulties in understanding the questions, and limitations in cognition (Patton, 2015).

The study’s exclusion criteria included individuals incapable of elucidating understanding of the different points of discussion (see Appendix B). As the sole researcher in this study, it was essential to acknowledge the potential for researcher bias. Considering this approach requires researcher interpretation, my interpretation might not adequately reflect the experience of my participants. To control for researcher bias, I engaged in reflexivity throughout this study. Reflexivity is a method of emphasizing the importance of deep introspection, consciousness, cultural awareness, and ownership of one’s perspective (Patton, 2015). It permits reflection regarding how one thinks and inquiries into one’s thinking pattern while making sense of patterns and observations. In addition, I examined prejudgments, preconceptions, and any potential biases.

A potential ethical consideration for this study was confidentiality. I utilized snowball sampling, which requires existing research participants to recruit participants for the study (Patton, 2015). Customarily, the recruited participants are known acquaintances which can result in issues with confidentiality. To ensure confidentiality, the names and demographic information (see Appendix C) of respondents were replaced with identification numbers. Patton (2015) suggested creating an identification file to link numbers to participants. The file should only be available for legitimate purposes. I followed this guideline. I had no preexisting personal or professional relationships with participants and did not provide incentives to them.

Methodology

Participant Selection Logic

The sample population of vaccine-hesitant parents was obtained from a large Midwestern city in the United States. Study participants were recruited through snowballing sampling after receiving Institutional Board approval. To ensure participants were appropriate for this study, I used screening questions to determine if prospective participants met the selection criteria (see Appendix B). Individuals who do not meet the criteria and those who are incapable of providing informed consent or independent decisions and individuals who cannot elucidate an understanding of the different points of discussion were excluded from this study. Participants were included in the study if they had one or more children under the age of 18, had declined or delayed immunizations for their children, and had ambivalent attitudes towards vaccinations. For this study, ambivalent attitudes was defined as the inability to choose between two courses of action (Rossen, Hurlstone, Dunlop, & Lawrence, 2019). Specifically, it implies the indecisiveness of parents regarding vaccinations. Creswell (2018) recommended in phenomenological studies an amount of 10 to 25 participants. Burkholder, Cox, and Crawford (2016) indicated that the customary sample size of participants for phenomenological approaches is 8 to 12 participants. With these suggested sample sizes in mind, the researcher aimed to obtain a minimum sample size of 10 participants to meet Creswell's and Burkholder's and colleagues' recommendations. To initiate participant recruitment an introduction/recruitment letter was distributed to several physicians and office managers at wellness clinics and pediatrician’s offices, requesting access to prospective research participants. I met with the physicians interested to further discuss this study. During the meetings, I requested the opportunity to display a recruitment flyer. This flyer included information regarding the study and the researcher’s contact information. Participants were screened via telephone to ensure they met the study’s inclusion criteria (see Appendix B). Qualified participants who met the criteria had interviews arranged. After obtaining informed consents, interviews commenced. As the sole researcher, I collected data through in-depth interviews. The interviews lasted between 60 to 90 minutes.

Data saturation relates to the degree to which new data repeats what is expressed in previous data. It is achieved when enough data information exists to replicate the study, and additional coding is no longer feasible (Fusch & Ness, 2015; Saunders et al., 2018). In phenomenological study designs, strategies such as the use of probing questions and creating a state of epoche assists researchers in obtaining data saturation (Saunders et al., 2018). According to Fusch and Ness, study designs are not universal. Therefore, there is not a single strategy that is universal to achieving data saturation in qualitative studies. However, researchers agree on general principles relating to data saturation which include no additional data, themes, and codes can be found (Fusch & Ness, 2015; Moustakas, 1994; & Saunders et al., 2018). Fusch and Ness implied that smaller studies consisting of fewer participants reach saturation more rapidly than a larger study. Considering there is not an established formula regarding sample size in qualitative studies, I utilized the principles of qualitative research to guarantee data saturation. To ensure data saturation in my study, I constructed a semi-structured interview guide asking multiple participants the same questions. I reflected on potential bias and ensured that the interpretation of the phenomena represented the interpretation of the participant. I anticipated that data saturation was achieved when the collection of data no longer revealed new data. Upon further assessment, my data revealed no additional codes, categories, and themes. At that time, I discontinued the interview process.

Instrumentation

In qualitative studies, the main instrument utilized for collecting data is the researcher (Patton, 2015). The most commonly noted sources of data collection instruments for qualitative research include semistructured interviews, field notes from personal observations, focus groups, journals, open-ended questionnaires, and products which capture individuals' responses to a phenomenon in their words (Burkholder, Cox, & Crawford, 2016; Mayer, 2015). Phenomenological researchers frequently collect data through interviews (Burkholder, Cox, & Crawford, 2016). For this study, the source of the data collection instrument was a semistructured interview and audio-tape. The semistructured interview focused on the participants' responses. The researcher responded to each participant's response with follow-up probe questions to ensure that rick/thick descriptions are generated from participants (Burkholder, Cox, & Crawford, 2016). Examples of prompts/probing questions utilized for this study include "Tell me more about your experience. What was that like for you? Please provide an example." Burkholder and colleague noted that the use of prompts would naturally vary during interviews. The variation of prompts was dependent on how forth-coming and communicative my research participants are. The source for each data collection instrument was researcher produced. Considering published data collection instruments might not adequately align with this study's problem, purpose, research questions, design, and methodology. The purpose of the semistructured interviews and audio-recordings is to delve deeply into the experience of participants rather than gathering a shallow amount of data (Burkholder, Cox, & Crawford, 2016). These data collection instruments require researchers to spend adequate amounts of time to reflect a participant's insights articulately. The selected data collection instruments provide depth and understanding, which ultimately assisted in answering this study's research questions.

Researcher-developed instruments. In qualitative research, researchers customarily create their interview guides (Patton, 2015). To initiate the creation of the interview guide, the theory of reasoned action, and this study’s literature review was examined to determine what information the interviews contributed to this study’s research question. Considering the purpose of the interview questions is to contribute to the study’s research questions (Patton, 2015). Patton indicated that phenomenological interviews aimed to elicit comprehensive accounts of a person’s experience of the phenomenon. The interview guide aimed to evoke experiential, anecdotal accounts of the participant’s healthcare experiences to understand how these experiences influence the participant’s decisions to vaccinate their children. By capturing their descriptions of their lived experiences, I aimed to describe the phenomenon (Patton, 2015). To ensure consistency, a discussion guide with semi-structured questions was used for each participant.

In qualitative studies, validity entails that the researchers check for the accuracy of findings by employing various validity procedures (Patton, 2015). Creswell (2018) recommended the use of multiple approaches to enhance the researcher's ability to assess the accuracy of the findings. The following approaches were applied for this study to assist with validity, clarification of researcher bias, providing rich/thick description to convey findings, and peer-debriefing with my mentor. I generated a panel of experts to examine the interview guide and to provide a validity evaluation. The expert evaluations were noted in the Expert Panel for Qualitative Instrumentation (see Appendix D for the instrument used by the panelists). The panel of experts consisted of three instructors at Walden University. The feedback provided by the expert reviewers was considered in preparation for the creation of the final interview guide.

Procedures for Recruitment, Participation, and Data Collection

Participants with one or more children under the age of 18, who had declined or delayed immunizations for their children, and had ambivalent attitudes towards vaccinations were purposefully recruited for their perspectives. To recruit potential participants, a recruitment letter (see Appendix E) was distributed at a large Midwestern city to physicians and office managers at wellness clinics and pediatrician offices. The letter inquired about access to prospective research participants. An initial meeting with interested physicians occurred to discuss the study in detail. Once participants were identified and screened to ensure eligibility, they were utilized to recruit additional participants. The recruited participants were provided with a flyer containing my contact information (see Appendix F). When I made contact with potential participants, I queried them to ensure they met the study’s inclusion criteria (see Appendix B). After obtaining informed consents, interviews commenced. The snowballing sampling method failed to procure a sufficient number of research participants. Therefore an additional recruitment facility was utilized. I collaborated with alternative health practitioners at an alternative health care practice to ensure adequate recruitment of participants for my study. Studies found a strong association between parents obtaining information from alternative health practitioners and non-compliance with the recommended vaccination schedules (Atwell, Ward, Meyer, Rokkas, & Leask, 2018; Bleser, Elewonibi, Reni, Miranda, BeLue, 2016). According to Bleser and colleagues, alternative medicine practitioners frequently recommended against vaccines. Similar procedures were in place for this recruitment site. To recruit additional participants, a recruitment letter (see Appendix E) was distributed to alternative practitioners and office managers in a large Midwestern city. An initial meeting with interested practitioners occurred to discuss the study in detail. Once participants were identified and screened to ensure eligibility, they were utilized to recruit additional participants. The recruited participants were provided with a flyer containing my contact information (see Appendix F). When I made contact with potential participants, I queried them to ensure they met the study’s inclusion criteria (see Appendix B).

Data collection. The initial interviews occurred at the partnering organization’s office in a private conference room. This area was selected to provide familiar surroundings to participants. Transportation for each participant was arranged via Uber. I arranged a pick-up and drop-off time conducive to the participant’s schedule. As the sole researcher, I collected data through in-depth interviews. The interviews lasted between 60 to 90 minutes and were structured to address different components of the theory of reasoned actions which include the subject's behavior intention, attitudes, subjective norms, and external variables affecting their decisions to vaccinate their children (Ajzen & Fishbein, 1980). During the interviews, I paid close attention to separating any beliefs regarding the choice to vaccinate to provide objective and nonbiased data (Creswell, 2018). The dates and times was selected by the participants for their convenience. To enhance qualitative reliability, interview sessions was recorded using an audio-recorder and verbatim transcripts were generated utilizing transcription software, with participant permission. Creswell (2018) recommended assessing transcripts to ensure they do not contain transcription errors. At the end of each interview, the researcher arranged a date and time for the participant to review transcripts. This process occurred one week following the initial interview and was conducted via telephone. Participants examined transcripts and provided clarification on the interview findings. This follow up process of reviewing lasted one hour or less. This phone interview was the final contact that occurred between the researcher and the participant. The researcher's contact information was provided to participants if any additional questions were to arise.

Data Analysis Plan

This study intended to explore and understand the perceptions of vaccine-hesitant parents on their healthcare experiences. An assessment of this perception can illuminate how their experiences influence their healthcare decisions to vaccinate their children. Examining the perceptions of adults who have an aversion to preventative health interventions such as vaccinations will further assist researchers and healthcare providers in creating individualized and efficient strategies. The interviews, audio recordings, verbatim transcripts, annotations of nonverbal communications, and interview questions are centered to contribute to the research questions, How do the healthcare experiences of vaccine-hesitant parents' influence their healthcare decisions to vaccinate their children? How do vaccine-hesitant parents' perceive the current strategies promoting vaccinations for their children? (Patton, 2015; Creswell, 2018). Interviews were administered to all participants, at that time data collection commenced. All interviews were audio-recorded to ensure accuracy. During the interviews, I observed and recorded the participant's voice tones and nonverbal communication to assist with rich/thick descriptions. The analytic method selected was Colaizzi's method (1973). This approach is consistent with descriptive phenomenology (Abalos, Rivera, Locsin, & Schoenhofer, 2016). Colaizzi's method involves seven steps which consist of reading the transcription of interviews, identifying significant statements, formulating meanings for the identified significant statement, organizing the formulated meanings into themes, creating a composition of an exhaustive description of the phenomenon, and validating findings with the research participants (Abalos, Rivera, Locsin, & Schoenhofer, 2016; Colaizzi, 1973).

Atlas.ti edition 8 transcription software was used to generate transcripts. To assure the quality of these transcriptions, I compared the audio recordings to the transcripts and included nonverbal cues. The assessment of transcripts occurred multiple times to acquire a sense of familiarity and to ensure that I separated my thoughts regarding the subject. The transcripts were re-examined to identify significant statements relating to vaccine-hesitant parents healthcare experiences. The statements selected demonstrated significance to the research questions and was noted by verbatim quotes. The next step involved ascribing meanings from the significant statements through formulating codes. Once the codes were created, they were organized into themes. The next step included documenting an exhaustive description consisting of analytical steps, codes, themes, and a summarization of the process. The final step involved validating findings with the research participants. This step was achieved during the follow-up phone interviews. Participants were provided with transcripts, and feedback was collected regarding their concepts of accuracy.

The qualitative data analysis (QDA) software selected for this study was Atlas.ti edition 8. This particular QDA program possesses a quality and user interface (UI) intuitiveness superior to most QDA software (Boston University, n. d.). UI Intuitiveness implicates that users can readily comprehend and navigate through the program without rationale or specialized training (Boston University, n.d.; Predictive Analysis Today, 2016). A novice QDA user can utilize the features of Atlas.ti 8 effortlessly (Boston University, n.d.; Predictive Analysis Today, 2016). With that being said, Atlas.ti 8 software assisted in several components of the study, including the organization of my research articles, transcription of interviews, coding transcripts, and grouping codes into themes. Word frequency was identified by this QDA software, which assisted in the identification of themes. The themes were compared and contrasted to each participant interview transcript to ensure that I captured the essences of those who are vaccine hesitant. Finally, each theme was charted and compared to the research questions to assist in the final identification of themes for the study.

Qualitative researchers often seek out negative cases or discrepant data to support their research findings (Ravitch & Carl, 2016). Discrepant data is delineated as an experience or viewpoint which diverges from the main body of evidence (Ravitch & Carl, 2016). I assessed codes and themes for discrepant data. The goal of searching for disconfirming evidence was to challenge my preconceived notions and generated themes for the study. Utilizing this strategy ultimately strengthens the findings and adds complexities to my interpretations (Ravitch & Carl, 2016). To assess themes and codes for disconfirming evidence, I reflected on the following questions, “What viewpoints emerge to counter my generated themes and potential findings? Have I challenged myself to come with alternate explanations of interpretations? What data should I engage in to learn more about possible alternative explanations? What can I learn from participants and their experiences that are different from the patterns I have generated?” (Ravitch & Carl, 2016).

Issues of Trustworthiness

Validity is the methods researchers enlist to affirm that the study findings are a true reflection of the participants’ experiences (Ravitch & Carl, 2016). The primary methods to establish validity and trustworthiness include the use of the following standards credibility transferability, dependability, and confirmability. Credibility refers to the researcher’s capacity to account for all the complexities which occur in the study and how they handle patterns that are not easily explained (Ravitch & Carl, 2016). The strategies to establish credibility in qualitative studies include the peer debriefing, discussing discrepant cases, using thick descriptions, member checking, triangulation, and reflexivity (Ravitch & Carl, 2016). To establish credibility, I reflected on the following questions, “How can my research design seek complexity? Do my methods align with my research questions? Have I designed my study so that the data set is rich, consisting of multiple contributing data sources? How will I interpret data so that my assumptions and biases are withheld? How am I connecting the data?” (Ravitch & Carl, 2016).

Transferability is the way in which the research can be applied or transferred to a broader context. In regards to transferability, I reflected on the following questions, “How are the contextual factors being described which shape and mediate my study? Do the methods in which I frame the data permit full contextualization of my study’s findings? Are there thick descriptions with my findings? Have I made contextual relevance? Is my presentation of data clear in my write-up?” (Ravitch & Carl, 2016). Dependability is established when the study’s findings are consistent and stable over time. This strategy of validity entails that one has a rationale for how data was collected and that the data is consistent with the researcher’s arguments. The primary method for establishing dependability is triangulation and providing a rationale data collection and methods. I reflected on the following questions to establish dependability, “Why did I select my research methods? Are my selected methods appropriate to answer my research questions? Does my research design seek rigor? What might be challenged regarding my methods, and how do I address these concerns? Have I reflected on other methods suitable for my study? Have I considered limitations to my design?" (Ravitch & Carl, 2016).

Conformability is to the degree of objectivity in research. This standard is accomplished through the process of reflexivity. According to Patton (2015), reflexivity is critical self-exploration of one's interpretations. It is an examination of and the consciousness of one's perspectives and thoughts. To establish confirmability, I reflected on the following questions, "Do I have an agenda? Does my agenda influence the research findings? If the research findings are influenced by my agenda, how can I prevent that? Would another researcher have similar interpretations? How can I prevent potential bias? How can I challenge my thinking? What strategies can ensure subjectivity and positionality?" (Ravitch & Carl, 2016). To assure the strategies of validity, this author kept a reflective journal and make comparisons of potential bias to the research findings.

Inter-coder reliability refers to the extent to which two or more coders agree on the generated coding (Patton, 2015). Ravitch and Carl implied that inter-coder reliability is an essential component of content analysis. Without this interpretation, it is difficult to ascertain that findings are objective and valid (Patton, 2015). To ensure inter-coder reliability, I collaborated with my mentor to ensure that codes are a true reflection of the participant's interviews.

Ethical Procedures

The agreement to gain access to research participants consisted of a recruitment letter (see Appendix E). This letter was distributed at a large Midwestern city to physicians and office managers at wellness clinics and pediatrician offices. A core requirement of the IRB is informed consent; this document assists in ensuring that the participants understand the nature of the study, the potential risks, and that participation is voluntary (Rubin & Rubin, 2012). There are a few noted ethical concerns pertaining to the recruitment process, considering that participants referred known acquaintances to the study (Etikan, Alkassim, & Abubakar, 2016). This aspect might limit the study's guarantee of confidentiality (Babbie, 2017). Scrutiny and knowledge of identity might restrict the participant's willingness to openly discuss their perceptions (Etikan et al., 2016).

Informed consent was obtained from participants by providing a comprehensive explanation of the study in layman's terms. An explanation of how the study data will be collected and utilized was delineated to participants. To assess the participant's comprehension levels all participants were required to articulate all discussion points throughout the interview. It was emphasized to subjects that all participation is voluntary. Additional aspects of the study conveyed to research participants include their role and potential risks of the study (Patton, 2015). Ethical issues such as confidentiality and privacy relating to data collection was discussed. In this study, these ethical aspects were ensured. Three fundamental principles of respect for persons, beneficence, and justices will be conveyed to participants. In particular, this research emphasized that subjects are not to be harmed by the study and should benefit from it (Babbie, 2017). The role of the researcher was illustrated. The last component discussed with the subjects is the risk/benefits of the study. The interviews were estimated to last between 60 to 90 minutes. Any potential risks were identified. I emphasized that participation could be withdrawn at any time during the study.

To ensure confidentiality, I de-identified all participant information and demographics (see Appendix C). Data generated for this study were stored using Atlas.ti 8, with no identifying information. Data were stored on a password-protected hard drive. Participants were assigned a number. This number was referenced during any data summaries. A list of participants and corresponding assigned numbers was stored in the Atlas.ti 8 QDA using password-protected encryption. The only person with permissions to access the data and knowledge of the password was this researcher. Data will be stored for five years (Walden IRB approval no. 01-02-20-0359087). After the completion of five years, all files will be destroyed.

Summary

Chapter three elucidated the study's research design and methodology, which consisted of a semi-structured interview administered to parents of children living in a large Midwestern city. A description of research participants, researcher role, data collection, and data analysis was detailed. A discussion of validity and trustworthiness occurred with detailed descriptions of how this author addressed strategies of validity and trustworthiness. The next chapter begins with an introduction, a presentation of participant demographics, an illustration of data collection/analysis, evidence of trustworthiness, and the study results.

Chapter 4: Results

Introduction

The purpose of this study was to explore the perceptions of vaccine-hesitant parents regarding their healthcare experiences, how their experiences influence their healthcare decisions to vaccinate their children, and how this group perceives the current strategies promoting vaccinations for their children. To address the gap in the literature on how vaccine-hesitant parents perceive healthcare, I utilized a qualitative paradigm with a phenomenological design. Examining the perceptions of adults who have an aversion to preventative health interventions such as vaccinations may assist researchers and healthcare providers in creating individualized and efficient strategies. I sought to address two RQs: (a) How do healthcare experiences of vaccine-hesitant parents influence their healthcare decisions to vaccinate their children? (RQ1) and (b) How do vaccine-hesitant parents perceive the current strategies promoting vaccinations for their children? (RQ2). In this chapter, I discuss the study setting, demographics, and data collection and analysis procedures and present evidence of trustworthiness and the results of the study.

Setting

I gave research participants the option of a face-to-face interview or a phone interview. Five interviews were conducted face-to-face in a private room provided by my partnering organizations. To assist in ensuring participants' privacy, interviews occurred in a location where conversations could not be seen or heard. Five interviews were conducted by phone. All interviews were arranged on different dates to decrease the potential for participants to encounter other participants. During the study, there were no existing personal or organizational conditions that influenced participants or their experiences. After consent was obtained, the interviews commenced. An interview guide was utilized to inquire about the participant's perspectives on healthcare and the current strategies promoting immunizations. A total of 10 interviews were conducted.

Demographics

Table 1 presents the demographic information for the 10 participants who were interviewed for this study. The recruitment efforts resulted in the obtainment of 10 participants from a large Midwestern city in the United States. Seven of the participants interviewed self-identified as White/Caucasian descent. Two of the participants self-identified as African American, and one participant identified as Asian Pacific Islander. Participants were all adults aged 27 and older; seven were women, and three were men. All participants were the parents of at least one child aged 18 years or younger and were responsible for making medical decisions for their children. The ages of participants ranged from 27 to 37 years. Seven of the participants were in their thirties, and three of the participants were in their twenties. Seven participants had obtained college degrees, whereas three participants had received their high school diplomas. All participants disclosed their education levels and marital status. All participants have declined or delayed vaccinations for their children and have varying degrees of ambivalence towards vaccinations.

Table 1

Demographics of Participants

#	Age	Gender	Marital status	Education	Race	Primary language	Ages of children (years)	# of children at home
001	36	Female	Married	High school diploma	Caucasian	English	17, 15, 12, 7	4
002	35	Male	Single	Masters degree	Caucasian	English	5	1
003	29	Female	Single	Masters degree	African American	English	9 months	1
004	35	Female	Single	Bachelors degree	Caucasian	English	5 and 3 months	2
005	31	Female	Single	Bachelors degree	Asian Pacific Islander	English	4	1
006	37	Female	Married	Bachelors degree	Caucasian	English	4 and 2	2
007	29	Female	Married	Bachelors degree	Caucasian	English	3 and 1	2
008	30	Male	Married	Bachelors degree	Caucasian	English	3 and 1	2
009	30	Male	Married	High school diploma	African American	English	6 and 2	2
010	27	Female	Married	High school diploma	Caucasian	English	6 and 2	2

Data Collection

The recruitment efforts initially resulted in the procurement of 11 participants from a large Midwestern city in the United States. One research participant withdrew from the study following the initial phone screening due to family issues and time constraints. Therefore, a total of 10 participants were interviewed for this study. The method of recruitment used for this study was snowball sampling. This method requires participants to recruit acquaintances who might qualify for the study by distributing flyers (see Appendix F). Potential participants contacted me via phone or e-mail to inquire about the study. Once contact occurred, all participants were screened via phone, using screening questions to ensure they met this study’s criteria (see Appendix B). Following the phone screening, I provided information on the study. The consent form was reviewed, and the study's background, procedures, voluntary nature of the study, risks/benefits, and confidentiality were discussed. Following this review, I answered the participants’ questions regarding the study. Research participants were given the option of a face-to-face interview or a phone interview. Half of the research participants selected to have face-to-face interviews. For those who selected a face-to-face interview the consent was obtained prior to the interview, at a later time to ensure that each participant had a sufficient amount of time to consider the risks/benefits of the study; I also provided copies of the consent form to each participant. For those who selected a phone interview, the consent was obtained via e-mail prior to the interview.

Half of the interviews were conducted at a wellness facility or alternative practice facility while the other half of the interviews were conducted via telephone. I collected data from January through February 2020. Interviews were recorded with the permission of each participant and lasted between 25 to 45 minutes. To guide the discussion, I prepared interview questions to provide research participants the opportunity to discuss their perspectives (see Appendix A). To ensure the quality of data, I asked probing questions to encourage further discussion when the participants had limited responses. Following the interview session, the audio recordings were transcribed verbatim into Word documents. Nonverbal cues were added into each transcript to increase the richness of the data. At the conclusion of each interview, I arranged times for the participants to verify and validate their transcripts. One to two weeks following their interviews, each research participant was provided with a copy of their transcribed interviews. I contacted the research participants via phone to verify the accuracy of their statements. Following each research participant's approval, the transcripts were uploaded into Atlas.ti 8 software for coding analysis. There was one variation in data collection from the proposed plan in Chapter 3. Several participants requested the option of having a phone interview instead of a face-to-face interview. Therefore, a request was made to the IRB to change procedures to include phone interviews. No unusual circumstances were encountered in data collection, and no incentives were provided to participants.

Data Analysis

I administered a total of 10 interviews. All interviews were audio-recorded and transcribed verbatim to ensure accuracy. During the face-to-face interviews, I observed and recorded the participant's voice tones and nonverbal communication to assist with rich/thick descriptions. During phone interviews, the participants' vocal tone, rate of speech, and pauses were noted. These observations were annotated in each transcript. The analytic method applied to this research study was Colaizzi's method, which is consistent with descriptive phenomenology (Abalos, Rivera, Locsin, & Schoenhofer, 2018; Colaizzi, 1973). Colaizzi's method involved seven steps which consist of reading the transcription of interviews, identifying significant statements, formulating meanings for the identified significant statement, organizing the formulated meanings into themes, creating a composition of an exhaustive description of the phenomenon, and validating findings with the research participants (Abalos, Rivera, Locsin, & Schoenhofer, 2018; Colaizzi, 1973).

The initial step of data analysis involved using Atlas.ti edition 8 transcription software to generate transcripts. The audio recordings were transferred to Atlas.ti 8, and verbatim transcripts were formulated. To ensure the quality of these transcriptions, I compared the audio recordings to the transcripts and included nonverbal cues. Nonverbal cues consisted of the participant's body language, facial expressions, and vocal tones. The assessment of transcripts occurred multiple times to acquire a sense of familiarity and to ensure that I separated my thoughts regarding the subject. Significant statements were distinguished relating to the vaccine-hesitant parents' healthcare experiences and perceptions on the current strategies promoting vaccinations, and these sections of data were code. In addition, keywords, word frequencies, and phrases that emerged from the data were identified. The statements selected demonstrated significance to the research questions and were noted by verbatim quotes.

I conceptualized central ideas then ascribed meanings from the significant statements through code formulations. The coding process consisted of two cycles of coding. The first cycle of coding distinguished In Vivo codes from the segmented data. According to Saldana (2016), research questions that address the nature of participants' realities such as, "How do healthcare experiences of vaccine-hesitant parents influence their healthcare decisions to vaccinate their children?" suggests an inquiry and exploration of personal, interpretative meaning within the data. Therefore this type of coding aligns with my established research questions. In Vivo coding is a method of attuning oneself to participants' and actions (Saldana, 2016).

Following the generation of codes, during the second cycle of coding, was the organization of codes into aggregated themes. I then documented an exhaustive description consisting of analytical steps, codes, themes, and a summarization of the process. Once the data was depicted in detail, I validated the data findings with each research participant. Validation was achieved with follow-up phone interviews in which participants were provided with transcripts, and feedback was collected regarding their concepts of accuracy. The last step required the incorporation of new data acquired from participant validation into my final summary. A majority of research participants did not provide additional data. Four major themes emerged from the data. The themes identified for this study consisted of criticism, lack of transparency, diminished treatment, and desire for knowledge. Table 2 illustrates the themes which transpired from the formulated In Vivo codes.

Table 2

Theme Formulation

Central Ideas	Codes	Themes
Poor reactions to participant beliefs Strong emotional displays of disagreement	Judgement Anger Bullied Irritated	Criticism
Misinformed Unknowledgeable providers No evidence of vaccine safety Deficient information Incomplete and fragmented Information	One-sided perspective Biased view Partial information Distorted Hidden agenda	Lack of transparency
Fast-paced healthcare visits Lack of concern for addressing parent's needs Closed communications Dismissed concerns	Disregarded Overlooked Neglected Not forth-coming	Diminished treatment
Seeking out knowledge Searching for answers Finding more information Familiarizing oneself with ingredients	Independent search Resources More information	Desire for knowledge

Theme 1: Criticism

The theme of "criticism" is described in this study as the experienced act of unfavorable remarks, expressions, or gestures. The most prevalent codes related to the theme of criticism are judgement, anger, bullied, and irritated. All of the research participants' experienced some form of harsh criticism. Various healthcare providers attempted to convince the participants of their errors in judgement. According to P006, "We definitely received harsh judgment. They looked at us like we were basically child abusers, like we had three heads. Like they had never heard anybody say that they did not want their child to be vaccinated." P002 detailed a negative experience of criticism "I could tell he was very annoyed with me or aggravated with me. And so, I didn't really want to talk. He seemed very dismissive and didn't really want to talk. He was obviously, you know, judging me." When participant P004 made an attempt to discuss concerns regarding vaccine ingredients, she experienced an antagonistic expression from her healthcare provider. P004 recalled that "My daughter's physician was not opened to answering questions. I mean, you could read her emotion. Her emotions on her face, you know, you can tell she's irritated even with just asking questions."

P001 delineated various experiences of criticism from different healthcare workers. P001 stated "So they get irritated. The nurse does, as soon as you tell them that you're not doing the vaccines that day, um, you can already sense an irritation immediately." P001 than discussed how she was treated after her doctor came in her room "He was screaming at me because I would not give her the flu shot. I was crying, and he told me that she was going to die." P009 expressed the immediate disapproval he experienced when deciding against vaccination "It was a negative experience. They tried to bully us and force us to vaccinate and do things. It was a lack of respect from the beginning." Following the refusal of vaccinations, P009 indicated, "An overall rudeness was experienced. The whole energy changed from the doctor to the staff." P010 detailed how the healthcare staff treated her following her refusal to vaccinate. P010 stated, “I just felt it was extremely unprofessional. This is a business, right? I said I’m not doing anything. And then she immediately stopped looking at me and only really the whole rest of the time talked to my mother.” P005 described her feelings of judgement “When I told them, right when I told my daughter’s provider, I don’t want my daughter to get vaccinated, she kind of just looked at me and kind of rolled her eyes.”

P007 described her encounters with two different physicians when she was attempting to establish a pediatrician for her child. P007 stated, “They wouldn’t even, um, allow us to come to their practice because we wanted to delay vaccinations,” leading to a referral to another physician who stated the same thing. P007 depicted a “frustrating experience.” P007 described it as a feeling of “manipulation” as if she had to “do exactly what they say… it felt like it robbed us of our rights as parents to decide how to take care of our child.” P007 recalled her delivery experience, indicating that the nursing staff was “appalled” by their decisions not to vaccinate. P007 describes the expressions that were apparent in the nursing staff's “facial expressions and body language,” as well as one nurse’s continued inquiry of vaccinations after repeated indications of not wanting to vaccinate.

P008 conveyed his experience of how his daughter was treated when the staff found out about their decisions not to fully vaccinate, “Our daughter was kind of treated like a, uh, a petri dish, you know… you didn’t know what would be lurking inside of her that could destroy the office.” In addition, P008 conveyed his feelings of judgement “We felt like we were stupid.” The practitioners questioned his thinking, and he felt “like an idiot.” P008 elaborated that “making a parent feel stupid certainly doesn’t help them to be informed and empowered.”

Theme 2: Lack of Transparency

The theme of “lack of transparency” is delineated as ambiguous, concealed, and hidden information. The most reoccurring codes relating to this theme were from participants’ commentary on information being one-sided, biased information, partial information, distorted perceptions, and hidden agenda. This theme was formulated from a majority of participants’ impressions of one-sided information. As stated by P006, “The research is funded by vaccine companies. The CDC does not publish all the research. They just publish the research that promotes the vaccines rather than an all-encompassing look at all of the research that shows that vaccines don’t work.” P002 mentioned, “Pharmaceutical companies have a profit motive that encourages them to promote vaccines. I haven’t been able to find a study comparing vaccinated and unvaccinated children. The information they provide in doctor’s office is worthwhile… but just not enough.” P001 asserted that she thought that most healthcare workers were not looking out for their patients’ “best interest” considering that they are motivated by “financial gain.” P001 implied that the information is “not enough.” P001 further explains that “The paper does not show page after page of possible side effects and what is in the ingredients of a vaccine” and if providers have full-faith in these vaccines they should not be “scared” to share the “whole truth” of vaccines. P003 mentioned, “I didn’t feel the fact sheet was proof that the vaccination was effective. It’s just a general synopsis.” P003 addressed the missing aspects of information such as ”long-term effects of the vaccinations." P003 implied that "There's no way you can summarize or provide as much extensive information to a parent in two pages."

All participants wanted holistic information regarding vaccines. However, a majority of the participants received minimal vaccine information, and nearly all discussions with healthcare practitioners supported pro-vaccination ideals during their healthcare appointments. P004 discussed her experience of one-sided information "She went right to, um, why it's important to vaccinate, she was very pro-vaccination, which is fine, but when you want to be educated, discuss the risks. I mean, there's got to be some risk, right?" P003 stated, "I don't really feel she discussed some of the deeper vaccination side effects that can happen." In addition, P004 emphasized that "I would have had more respect for them if they would have shared more information with me and tried to answer some of my questions and concerns." P004 elaborated on her biased experience "I couldn't find ingredient lists. And again, I tried to ask my, um my daughter's physician, and she was not open to answering questions." P005 shared a similar experience of closed discussion "I feel like she didn't really explain to me much about the vaccines and immunizations. She didn't really go into much detail about it."

P010 discussed her perceptions of her healthcare provider's hidden agendas when it came to promoting vaccinations. P010 stated implied that "free shots" are used to make people "sick" which results in people "buying medication." P001 further elaborated her thoughts by stating that "If I am giving you something free, my intentions is to grasp you in my net, so then I can carry over to another product I'm selling. So I can earn income from you." P008 detailed his experience of lack of transparency "So we were told one side of that coin. We didn't feel like we were informed about the other, and that made us cautious enough to back away. We don't feel like we're getting the whole picture here."

Theme 3: Diminished Treatment

The theme of "diminished treatment" is described as the treatment of indignity and to lessen one's thoughts and opinions. The most prevalent codes relating to this theme were the reports from participants of feelings of disregard, overlooked, negligent, and not forth-coming. The title of this theme emerged from a majority of participants stating in some way they felt that office visits were often expedited and lacking open discussion. As indicated by P001, "They did not give me any pros or cons," and P003 detailed a lack of information "during the appointments" with no "in-depth conversation." P003 described her doctor appointments as "moving rather quickly, so you don't really feel comfortable with taking a lot of time, reviewing all that information before you make a decision to vaccinate." P004 shared a similar healthcare experience "It's a quick visit. They almost acted as if they were irritated that I was questioning them or question, you know, the science behind it. They seemed very rushed, and I understand they're seeing a lot of people every day."

P002 implied he had concerns regarding vaccine safety, but his concerns were not addressed during his "brief" appointments:

> For studying any medication, you have a certain standard, you know, no drug gets approved without a dosage. You know, like there's a toxic range and an ineffective range. There's a therapeutic index, and I mean that's got to be true for vaccines too. Cause it's not just an attenuated virus in a

> vaccine. You’ve got other, you know, adjunctive ingredients. At what dose does any of that stuff become toxic for an infant or five-year-old or for an eight-year-old? We don’t know enough. I don’t know that they explained like what vaccination is, you know, like in-depth or anything like that. It was really, it pretty much boiled down to, you know, your child needs those to prevent these infectious diseases.

P009 implied that during the healthcare provider appointments, “There was no relationship. It was just like an assembly line. You come in here and do the things to get out, versus actually letting us know, um, educating us.”

Theme 4: Desire for Knowledge

The theme of “desire for knowledge” is described as eagerness for one to expand their intelligence, awareness, and scholarship regarding vaccines. The most reoccurring codes associated with this theme were independent research, resources, and more information. The experience of all participants indicated that the top priority for parents during health appointments were adequately acquainting themselves with vaccines. They want information on vaccine ingredients and long-term effects. P009 described his intentions to seek more knowledge. P009 stated, “Okay, I need to know what is, what’s in this, what studies have been done. Where can I research this myself? If I was provided with this information, then I might be able to make a different decision.” P004 had a similar desire “They should be educating me… about these vaccines. I wanted information on, you know, possibly staggering the vaccine. I wanted to do a little bit of research. I want more information, and it just seems smart to want more information.”

P003 discussed wanting more answers and vaccine information. P003 implied that she "does her own research" she discusses the disadvantages of lack of knowledge "So a disadvantage is not really knowing what the long-term effects would be for getting vaccinations. There has been a lot of controversy on vaccinations and if they relate to autism and different things, you know, developmental disabilities." P001 discussed her urge to get more knowledge on this topic because there is a lack of holistic information provided in her doctor visits "I automatically get nervous because I am not a scientist. I haven't' went to med school. I'm doing what I can with the information that I can find because there is no information."

P010 talked about how parents' should seek knowledge and take "responsibility to learn" by "researching it." P010 implied more knowledge is needed to "fully understand what is in the liquid that is being injected into my child." P004 implied that she wanted "more direction" and "more education" from healthcare workers. P004 stated:

> I just feel like there's not enough information, other than just the straight-up answer of it prevents and protects against such and such disease. I'm not able to find or haven't been able to find, um, you know, some more information on things. I asked for information on where I could go, like a website or something to learn more about it. They were unaware of a website that I could refer to, so no additional references. They didn't point me in any direction.

P005 discussed her desire to find appropriate information "I honestly feel maybe I just don't have the right knowledge about immunizations. I really haven't done the research myself, and I don’t come from healthcare. Maybe I just need to get more information on the right sources.”

P007 detailed her process to gather more information about vaccines and their purpose. P007 indicated that she and her husband created a “spreadsheet.” This spreadsheet had information on the recommended schedule for the vaccine, side effects of the vaccines, symptoms of the disease, risks associated with the disease, and available treatments for the disease. P007 implied that her “risk-benefit analysis” gave her more information to guide her decisions to delay vaccinations for her children. P008 described his desires to be well-informed:

> We wanted… to be informed parents, which we think is our duty as parents, is to be as informed as we can be. We wish to see the whole picture because we love our kids. We want to be informed parents and we want to see the decisions before us. And then we want to, we want to discuss why this is the best decision.

Discrepant Data

Discrepant data is depicted as a viewpoint that diverges from the main body of evidence (Ravitch & Carl, 2016). I assessed codes and themes for discrepant data to challenge my preconceived notions and generated themes for the study. This strategy ultimately strengthened the findings and added complexities to my interpretations (Ravitch & Carl, 2016). To assess themes and codes for disconfirming evidence, I reflected on the following questions, “What viewpoints emerge to counter my generated themes and potential findings? Have I challenged myself to come with alternate explanations of interpretations? What data should I engage in to learn more about possible alternative explanations? What can I learn from participants and their experiences that are different from the patterns I have generated?"

Eight participants viewed the current strategies promoting vaccinations as biased, partial, one-sided, and containing a hidden agenda. During the data collection, it was discovered that three participants had a different viewpoint. P005 described her perceptions regarding the current strategies promoting vaccinations:

> You know, I didn't even get that information from, you know, my doctor's office. So I feel like, those would have been really good things to have, you know, I mean to know about the myths about immunizations and vaccines. That would be something good to know. It would have been great just so I could have it and look it over and maybe it would've changed my mind.

P005 viewed these strategies as potentially good resources. P007 implied that she found the CDC website and the vaccine information they published as "really helpful and a trustworthy resource." P008 indicated that if the strategies to promote vaccines are done "with tact" he "likes them… he appreciates them." Additionally, P008 felt it "informs" him as a parent.

All 10 participants detailed having some form of negative treatment from their past healthcare providers. However, a few participants were able to find new healthcare providers that they were more content with. P007 depicted her relationship with her current pediatrician "We love our pediatrician. She is really wonderful." P007 implied that her pediatrician was “so respectful” and that she “answered our questions” and felt that her doctor wanted “to understand” her perspectives. Considering the treatment and open discussions P007 “ended up going with two of the ones that she recommended.” P007 implied that because of the information that she was provided with, she made the decisions to give two vaccines to her child. P006 implied her relationship with her current pediatrician describing it as being on “good terms.” P006 describes her current pediatrician as “personable and easy to talk to.” P006 specifically sought out a practitioner who had the same beliefs of being “against vaccinations.” P006 stated “I think just having a healthcare practitioner who feels the same way about it as we do, just helps us to be even more confident in our decision.”

Evidence of Trustworthiness

Credibility

Credibility refers to the researcher’s capacity to account for all the complexities which occur in the study and how they handle patterns that are not easily explained (Ravitch & Carl, 2016). To establish credibility, I reflected on the following questions, “How can my research design seek complexity? Do my methods align with my research questions? Have I designed my study so that the data set is rich, consisting of multiple contributing data sources? How will I interpret data so that my assumptions and biases are withheld? How am I connecting the data?” (Ravitch & Carl, 2016).

I wanted to ensure that my methods aligned with my research questions. I selected the method of In Vivo coding. According to Saldana (2016), research questions that address the nature of participants’ realities such as, “How do healthcare experiences of vaccine-hesitant parents influence their healthcare decisions to vaccinate their children?" suggests an inquiry and exploration of personal, interpretative meaning within the data. Therefore this type of coding establishes an alignment with this study's research questions. To seek complexity, I assessed codes, and themes for discrepant data. I intended to search for disconfirming evidence to challenge my preconceived notions and generated themes for the study. My study design was created to formulate rich data. I annotated nonverbal communication, tones, and gestures. In addition, I included various quotes from all of my research participants to ensure that there were multiple contributing data sources. All of these facets added rich and thick descriptions. Data was interpreted without my assumptions or bias. This strategy was accomplished by choosing In Vivo coding and engaging in the process of reflexivity. In Vivo coding is the assigning of a label to a section of data, using a word or short phrase taken from that section of data. This form of coding assists in ensuring that codes remain true to nature to the participants' perspectives (Saldana, 2016).

In addition, data were acquired from research participants' who are well acquainted with the phenomenon of vaccine-hesitancy. To ensure that I remained neutral and to further enhance the credibility of this study, I enlisted the assistance of three expert panelists to review my research questions and interview protocol to guarantee no bias. The audio recordings and all transcripts were discussed with each participant to assess for accuracy of the research findings. At this time, the participants' were given the opportunity to provide additional insights into their interviews. There were no other findings at the time of verification.

Transferability

Transferability is how the research can be applied or transferred to a broader context. In regards to transferability, I reflected on the following questions, “How are the contextual factors being described which shape and mediate my study? Do the methods in which I frame the data permit full contextualization of my study’s findings? Are there thick descriptions with my findings? Have I made contextual relevance? Is my presentation of data clear in my write-up?” My study design was created to formulate rich data. I annotated nonverbal communication, tones, and gestures. In addition, I included various quotes from all of my research participants to ensure that there were multiple contributing data sources. All of these facets, “providing clear and concise procedures,” added rich and thick descriptions, and permitted full contextualization of my study’s findings. My data was presented in a manner that depicted various views of my research participants. However, in regards to transferability, the application or generalization of this study to other contexts is limited. Considering this study focused on a small sample size primarily consisting of white Caucasian participants in a large Midwestern city of the United States. It would be inappropriate to assume that this study could be transferable to other populations because only two different ethnicities were represented in this study, an African American woman/man, and an Asian woman. However, it applies to those researching strategies for vaccine-hesitancy.

Dependability

Dependability is established when the study’s findings are consistent and stable over time. The primary method for establishing dependability is triangulation and providing a rationale for the data collection and methods. I reflected on the following questions to establish dependability, "Why did I select my research methods? Are my selected methods appropriate to answer my research questions? Does my research design seek rigor? What might be challenged regarding my methods, and how do I address these concerns? Have I reflected on other methods suitable for my study? Have I considered limitations to my design?" (Ravitch & Carl, 2016). Dependability was primarily achieved when I established my research methods. Chapter three of my research study delineated why I selected phenomenology over the other qualitative methods and elucidated other suitable methods for my study. Dependability entails providing evidence that findings are reliable and could be replicated. To demonstrate dependability and triangulation, my data collection method and analysis consisted of multiple sources, which included audio recordings, nonverbal communication annotations, and validation of the accuracy of transcripts and annotations from participants. The research findings supported the descriptions of participants' experiences, which added to the dependability of this study. However, the discrepant data depicted contradictory experiences. Therefore, it was not possible to fully guarantee the consistency of this study's research findings.

Confirmability

Conformability is the degree of objectivity in research. According to Patton (2015), reflexivity is a critical self-exploration of one's interpretations. It is an examination of and the consciousness of one's perspectives and thoughts. This standard was accomplished through the process of reflexivity. To further establish confirmability, I reflected on the following questions, "Do I have an agenda? Does my agenda influence the research findings? If the research findings are influenced by my agenda, how can I prevent that? Would another researcher have similar interpretations? How can I prevent potential bias? How can I challenge my thinking? What strategies can ensure subjectivity and positionality?"

To assure the strategies of validity, this author kept a reflective journal and made comparisons of potential bias to the research findings. I paid close attention to the words annotated in my data to assure that they were a true reflection of the participants' perceptions and not my perceptions. In Vivo coding, was the key to ensuring an accurate depiction of the participants' perspectives. Considering this form of coding is directly formulated from participants' statements. When I initiated the process of data collection, I wrote an excerpt pertaining to my agenda for this study, which was to "understand vaccine-hesitant parents' perceptions so I might create efficacious strategies to promote vaccines and increase vaccination rates." With this awareness, I took measures to ensure that my agenda did not influence research findings. This strategy was accomplished through the use of an expert panel assessment. The panelists critiqued my interview questions to ensure that the questions did not convey any potential bias language such as ambiguous words, gender bias, racial/ethnic bias, and manipulative terminology. (See Appendix G for the feedback provided by the panelists.) The study findings are exclusively based on the participants' statements. All records of data, including audio recordings, verbatim transcripts, nonverbal annotations, journals of reflexivity, and participant validation of accuracy, will be kept in a password protected hard drive for five years, as mandated by the university.

Results

The following excerpt illustrates the conclusions of this study. The reoccurring themes that surround the perceptions of vaccine-hesitant parents regarding their perceptions of healthcare, how their experiences have influenced their decision to vaccinate their children, and how they perceive the current strategies promoting vaccinations are delineated. The four major themes identified from the data included criticism, lack of transparency, diminished treatment, and desire for knowledge. The selected themes assisted in addressing this study's research questions of "How do healthcare experiences of vaccine-hesitant parents influence their healthcare decisions to vaccinate their children? How do vaccine-hesitant parents perceive the current strategies promoting vaccinations for their children?" A majority of participants expressed that their decisions to not vaccinate or delay vaccines were based on negative healthcare experiences, lack of practitioner discussion, inadequate and biased vaccine information. Although a majority understood the purpose and benefits of vaccines, all participants had concerns about the vaccine ingredients and the long-term consequences of following the standard vaccine schedule. Excerpts from transcripts are mapped to exemplify themes in Table 3.

Table 3

Excerpts from Transcripts Mapped to Themes

Excerpt	Theme
They looked at us like we were basically child abusers.	Criticism
I could tell he was very annoyed with me or aggravated with me.	
He was obviously, you know, judging me.	
You could read her emotion, you can tell she's irritated even with just asking questions.	
You can sense an irritation immediately.	
They tried to bully us and force us to vaccinate.	
It was a lack of respect from the beginning.	Diminished Treatment
An overall rudeness was experienced.	
The whole energy changed from the doctor to the staff.	
I felt it was extremely unprofessional.	
She kind of looked at me and rolled her eyes.	
The nursing staff was appalled.	
Our daughter was kind of treated like a petri dish.	
They just publish the research that promotes vaccines rather than an all-encompassing look at all of the research.	Lack of Transparency
The paper does not show page after page of possible side effects.	
I did not feel the fact sheet was proof.	
It's just a general synopsis.	
There's no way you can provide as much extensive information to parents in two pages.	
I need to know what it is, what is in it, and what studies have been done.	Desire for Knowledge
Where can I research this myself?	
They should be educating me.	
I wanted information on staggering the vaccines.	
It seems smart to want more information.	
I haven't went to med school. I'm doing what I can with the information I can find.	
We need to fully understand what is in this liquid.	
I just feel like there's not enough information.	

Research Question 1

How do healthcare experiences of vaccine-hesitant parents influence their healthcare decisions to vaccinate their children?

The theme of criticism assisted in answering this research question. An overwhelming majority of participants reported that their healthcare practitioners reacted poorly to their vaccination beliefs. In addition, these practitioners exhibited strong emotional and nonverbal displays of disagreements. The reactions of the healthcare practitioners led participants to the overwhelming perceptions of judgment and conviction. In consideration of their treatments, a majority of the participants did not follow their healthcare practitioners' recommendations to vaccinate. P001 described a heavily critical healthcare provider "He was screaming at me because I would not give her the flu shot. I was crying and he told me she was going to die. You're not going to scream at me and force me to get the vaccine." P009 depicted a similar experience with his healthcare provider "It was very, very uh, negative experience, trying to bully us and force us to vaccinate and do things." When I inquired about how his healthcare experiences influenced P009's decisions to vaccinate, P009 implied, "We don't live our life by fear. That's what it seems like. It's just a bunch of scare tactics. We are not in the same energy field, and no possible way I put them on thoughts." P005 discussed her feelings of being "pushed away" by her provider. P005 implied that the doctor was aware that she had no intention to vaccinate. P005 revealed because of this knowledge that there was a perception of her being an "idiot."

The second theme which assisted in answering this research question was the theme of “diminished treatment.” The most commonly reported healthcare experience by participants was the lack of concern for addressing their needs. Office visits and exchanges with health care providers are often fast-paced, which often leads to the perceptions of closed communication and dismissed concerns. These perceptions came from a lack of time healthcare workers provided to have open discussions. P003 implied there was “no discussion” during the appointment, she described her experience of the appointment as “moving rather quickly,” and lacking a “discussion of any information.” P004 had a similar experience and described her healthcare provider encounter as “a quick visit” that appeared to be “very rushed.” P002 implied he had concerns and that his concerns were not addressed during his appointments. P002 illustrated his healthcare appointments as “brief” and not “explained.” P001 depicted a lack of discussion “they did not give me any pros or cons.” P009 emphasized a lacking “relationship” and described his healthcare experience as an “assembly line.” During such rapid office visits, there is no time for open discussions to address the main concerns of parents. Most participants were looking for answers to their concerns.

Research Question 2

How do vaccine-hesitant parents perceive the current strategies promoting vaccinations for their children?

The themes identified for this study which addressed this research question was the “lack of transparency and desire for knowledge.” Nearly all the data gathered from participants portrayed the concepts of one-sided bias information presented to parents during office visits. P006 implied her perceptions of deceptive information, considering the information is “funded by vaccine companies,” resulting in her discernment that “all the research” is not published. P002 indicated that these companies promoting vaccines have a “profit motive” and that the information provided is “not enough.” P001 implied a similar perception of “financial gain” and “not enough” information. P003 discussed her lack of satisfaction with the information, indicating that “extensive information” was missing from the two pages provided to parents.

All participants desired holistic information. However, the majority of the participants received minimal vaccine information. P003 indicated that the discussions lacked the “deeper vaccination side effects” of vaccines. P004 conveyed the desire for “more information” and “answers” to her questions and concerns. P005 implied a sense of closed discussion, stating there was a “lack of explanation.” The top priority for parents during health appointments was adequately acquainting themselves with vaccines. They wanted detailed information on vaccine ingredients and long-term effects. P009 described his intentions to seek more knowledge. P009 stated, “I need to know…. what studies have been done.” He implied that he wanted to seek the research out for himself. P004 had a similar desire indicating she wanted “a little bit more” education and wanting to do independent “research.” Likewise, P003 prioritized vaccination knowledge. P003 discussed her concerns about the long-term effects, and she needed to do “my own research.” P001 elucidated her lack of medical expertise and her efforts to gain more vaccination information. P001 stated she is doing what she can with what “she can find,” considering there is a “no information” presented in her doctor’s visit. All participants implied that vaccination knowledge was essential for parents in the decisions to vaccinate their children. P004 described wanting “more direction” and “more education” from the healthcare workers. Likewise, P005 stated that the lack of knowledge she had and how “right knowledge” “research” “and sources,” might have persuaded her to make a different choice.

Summary

In this study, I examined the perceptions of vaccine-hesitant parents and their perceptions of healthcare and the current strategies promoting vaccinations. The research questions were answered through the data collected from the interviews. The themes which emerged from the interviews included criticism, lack of transparency, diminished treatment, and desire for knowledge. The study results demonstrated that participants had various healthcare experiences that deterred them from vaccinating their children. The two prominent themes which addressed the research question of how the healthcare experiences of vaccine-hesitant parents influenced their decisions to vaccinate their children were “criticism and diminished treatments.” The themes which addressed my second research question of the perception of the current strategies promoting vaccinations were “lack of transparency and desire for knowledge.” In this chapter, I detailed data collection methods, data analysis, and this study’s findings. In the next chapter, I will present the interpretations of finds, the study limitations, recommendations, implications, and conclusions.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to explore the perceptions of vaccine-hesitant parents regarding their healthcare experiences, how their experiences influence their healthcare decisions to vaccinate their children, and how this group perceives the current strategies promoting vaccinations for their children. To address the gap in the literature on how vaccine-hesitant parents perceive healthcare, I conducted a qualitative study with a phenomenological approach. I examined individual perceptions with a goal of improving understanding of perceptions of healthcare. A phenomenological approach assisted me in gaining a further understanding the perceptions that affect parental decision-making regarding vaccines. With an understanding of parents' perceptions of healthcare, healthcare providers may be able to overcome vaccine hesitancy and improve vaccination rates for children.

I conducted this study with 10 participants with children aged 18 years and younger who have refused or delayed vaccines and have ambivalent attitudes towards vaccinations. This study was accomplished by using a semistructured interview guide. Despite the research showing that vaccinations are the most effective public health strategy to regulate and prevent VPD, a growing number of parents are intentionally delaying or refusing vaccinations due to vaccine efficacy and safety concerns (Connors et al., 2018; Ventola, 2016). This course of action has significantly impacted the number of cases of VPDs and deaths, leading to a significant rise in the United States (CDC, 2018; Vyas et al., 2018). Diseases that were once suppressed are now reemerging. To prevent the resurgence of VPDs, research must be conducted to find effective strategies to prevent vaccine hesitancy or refusal.

The study results revealed that many participants had negative healthcare experiences. When parents in the study attempted to engage in open discussions with their healthcare providers regarding their concerns and beliefs about vaccines, they reported experiencing criticism and diminished treatment. All participants stated that their providers were not transparent with all the information regarding the vaccine. All participants mentioned that the only facts presented to them were provaccination views lacking the all-encompassing aspects of vaccines' "harmful ingredients and long-term side-effects." All participants said they sought additional knowledge regarding vaccines. Parents were willing to conduct their own research and seek out resources so they could increase their knowledge on vaccines. Negative healthcare experiences and lack of transparency further enhanced various participants' perceptions of the hazards of vaccines. All participants did not accept their healthcare providers' recommendations to vaccinate. This refusal was mainly attributed to the poor education provided by the participants' healthcare providers. Chapter 5 includes an interpretation of key findings, discussion of study limitations, recommendations, discussion of the study's implications for positive social change, and a conclusion to the study.

Interpretation of the Findings

In this section, I discuss the study findings in relation to the two RQs, which addressed parents' perceptions regarding their healthcare experiences and the influence of these perceptions on decisions to vaccinate or not vaccinate their children and how parents perceive strategies promoting vaccinations. The interpretation of findings is discussed and grouped by the themes identified in this study.

Theme 1: Criticism

This study extends the knowledge on the importance of healthcare providers' reactions to parents when they refuse or decline vaccines. All of the research participants detailed the judgments they had experienced from healthcare providers once the providers discovered their intentions to not vaccinate or delay vaccines for their children. The most commonly reported perception of criticism included feelings of being bullied, stupidity, irritation, and anger. Witteman (2015) detailed how parents are reluctant to share their viewpoints on vaccine hesitancy due to the harsh criticism and negative feedback they receive. This study exemplified how these criticisms experienced by parents led to limited sharing of their viewpoints. The literature review conducted in Chapter 2 did not include studies on how negative treatments and criticism influenced healthcare decisions to vaccinate. Therefore, this study extended the knowledge of parent healthcare experiences and how these experiences influenced the vaccine decision-making process.

Theme 2: Lack of Transparency

The study results confirmed the results of the literature review, which indicated that information entities such as pharmaceutical companies are often viewed as less credible considering the potential of these companies to profit from vaccination sales (Kestenbaum & Feemster, 2015). Various research participants conveyed their concerns about a hidden agenda which stemmed from a "profit" motivation. The theme of lack of transparency addressed the research question of “How do vaccine-hesitant parents perceive the current strategies promoting vaccinations for their children?” The data demonstrated that participants perceived that healthcare providers and strategies that promoted vaccinations intentionally withheld all the negative aspects of vaccines. Participants said they believed this was intentionally done so they would be persuaded to accept vaccines. Bednarczyk (2018), Nyan, Reifler, Richey, and Freed (2014), and Witteman (2015) suggested that attempts to convince people of the value of vaccines through knowledge sharing and evidence often fail to improve the intention to vaccinate. This study’s findings are consistent with this research. Although a few participants viewed this information as positive, a majority indicated that the sharing of knowledge and evidence lacked respectful communication and led to a perception of belittlement because not all aspects of vaccines (e.g., “side effects, long-term effects, and vaccine ingredients”) were discussed

Theme 3: Diminished Treatment

Studies indicate that parents find it challenging to communicate their needs to their healthcare providers (Mckee & Bohannon, 2016). The results of this study are similar; 10 participants reported feeling that their healthcare visits were fast-paced, consisting of closed communications, which led to a perception of dismissed concerns. Furthermore, their perceptions of “diminished treatment” supported previous research showing that parents who are insufficiently informed often demonstrate distrust and negative attitudes towards healthcare provider recommendations (Dube, Vivion, & MacDonald, 2015; Kestenbaum & Feemster, 2015). Contrary to the study by Eller, Henrikson, and Opel (2019), only three of the 10 participants trusted their current pediatrician and use them as resources for vaccine information. In contrast, 8 participants lacked trust. This perception stemmed primarily from the treatment of closed communications and dismissed concerns. I found that participating parents who had experienced poor treatment during a healthcare encounter not only failed to accept healthcare recommendations from their providers, but they sought out other resources to address their vaccination concerns.

Theme 4: Desire for Knowledge

Kestenbaum and Feemster (2015) implied that one’s access to vaccine information strongly influences decision-making. This study’s results confirmed Kestenbaum and Feemster’s study findings. I found that inadequate vaccine information was the primary cause of vaccine-hesitancy and refusal. All participants in this study expressed the desire for additional information. The data revealed that 100% of participants cited a lack of knowledge and lack of transparency as the cause of their reservations against vaccines. Participants expressed a desire to know the constituents of vaccines and how these constituents affected their children's body long-term. All parents wanted to see longitudinal studies showing the effects of vaccines.

In congruence with Swaney and Burns's (2018) study, nearly all healthcare providers failed to discuss vaccine contents during their interactions with the participants. Swaney and Burns implied that this failure to disclose vaccine content was due to the belief that it would not benefit skeptic parents. The lack of this discussion frequently led all participants to seek out their own resources. Studies such as Kestenbaum and

Feemster and Eller, Henrikson, and Opel (2018) revealed that the trustworthiness of healthcare providers strongly influenced parents' decisions to vaccinate, as a majority of parents seek vaccination information from trusted resources. A majority of participants had healthcare experiences that were considered lacking transparency. So when I analyzed the themes with the research question in mind of "How do vaccine-hesitant parents perceive the current strategies promoting vaccinations for their children?" it is evident that the desire of knowledge stems from the one-side, biased, and partial information healthcare providers presented to participants.

Application of the Theory of Reasoned Actions to the Study Results

The TRA was utilized in this study to determine how the healthcare experiences of vaccine-hesitant parents has influence their decisions to vaccine and how they perceive the current strategies promoting vaccines. It is imperative to understand factors which predict health behaviors. This understanding is the necessary first step to creating interventions to alter detrimental health behaviors. Behavioral intentions were established as a key predictor of action in various health behavior theories. This framework was chosen to examine the individual and their thought processes which affect their healthcare decision making. This study examines adults with vaccine hesitancy, and it addresses their attitudes which then affect their behaviors and intention. Wong and Chow (2017) emphasized that attitude towards a behavior is crucial in predicting behaviors. In the field of nursing. The TRA framework could assist health care providers in finding answers to a variety of behavioral health intentions, including the parent’s intention to immunize or reasons why they may not choose to immunize their children (Carracedo, 2018). The aim of healthcare is to improve the collective health of individuals, including what can be achieved through immunizations. Understanding the attitudes and behaviors in relation to nursing care is imperative to healthcare practices. It remains essential to discover the parent’s perception of healthcare and what deters them from health recommendations.

The TRA guided the development of this study’s interview guide and assisted with data analysis in the formulation of codes and themes which came from the data. The TRA constructs consist of the intention to perform behaviors, attitudes, subjective norm, and external variable. TRA asserted that an individual’s behavior is determined by their intention to perform the behavior and the intention is a derivative of one’s attitude towards a behavior (Models and Mechanisms of Public Health, 2019). Study findings relating to TRA are exemplified in Table 4.

Table 4

Application of Participant Responses to Theory of Reasoned Actions (TRA)

Constructs of TRA	Explanation of how participants' responses relate to TRA	Participant's interview responses relating to TRA
Intention to Perform Behaviors and Attitudes	All parents had intentions of keeping their children healthy and safe	A majority of participants discussed varying concerns. A majority participants had no intent to vaccinate
	Perceived that the risk of vaccines "the potential of vaccines to harm" far outweighed the risk of contracting the disease	All participants conveyed more disadvantages of vaccines than advantages
Subjective Norm	All participants expressed that they felt the subjective norm was to receive vaccines	Although all participants felt social pressure to vaccinate. This perception had no influence on their decision to vaccinate
External Variables	Illustrated as the negative health outcomes resulting from vaccinations	All participants identified this facet of TRA as the most influencing aspect to not vaccinate

Intention to Perform Behavior and Attitudes

TRA asserted that an individual's behavior is determined by their intention to perform the behavior, and the intention is a derivative of one's attitude towards a behavior (Models and Mechanisms of Public Health, 2019). When determining one's intention to perform a behavior, I reflected on indications of the individuals' readiness to perform a behavior, which, as previously stated, is a function of one's attitude towards behavior and subjective norms toward a behavior (Models and Mechanisms of Public Health, 2019). Attitudes pertain to one's beliefs, values, and dispositions to act in a certain way. This concept is a function of one’s beliefs about the behavior and their perception of the outcomes of performing the behavior (Models and Mechanisms of Public Health, 2019). All participants conveyed the intention to prioritize their children’s health and safety. Despite this intention, all 10 participants imparted their concerns regarding vaccine ingredients and the potential for long-term harm. These various concerns led to the perception that the outcomes of vaccinating did not have more benefits than associated risks. A majority of research participants had no intention to vaccinate and saw more disadvantages than advantages with vaccines.

Subjective Norm

The subjective norm refers to an individual’s perception of social norms or peers’ beliefs about behavior. This facet of TRA is a function of one’s normative beliefs and their motivation to comply with the established norm. All participants perceived the subjective standard of society is to comply with vaccinations, considering vaccines are heavily promoted by a majority of pharmaceutical companies, physicians, and healthcare staff. The main discussion regarding the subjective norm was the social pressures sensed by participants during healthcare encounters. They illustrated an overwhelming pressure to get their children vaccinated. Social pressure was described as the “judgments, reactions, strong emotion display of disagreements, closed communications, and dismissed concerns,” that participants experienced. Although all participants conveyed a feeling of social pressure, none of the parents allowed this to influence their decision-making process.

External Variables

External variables are depicted as the negative consequences or adverse health outcomes resulting from a behavior (Models and Mechanisms of Public Health, 2019). This study indicated that this is the most essential component of TRA influencing parents’ decision-making process. All parents’ perceived that there are more significant risks and consequences associated with vaccinations than there are benefits. The adverse health outcomes of vaccinating identified by participants include “behavioral health issues, autism, seizures, paralysis, and developmental delays.”

Limitations of the Study

The primary challenge of this study addressed in chapter one was participant access. In consideration of this potential obstacle, the sampling strategy utilized for this study was purposive snowball sampling. The known disadvantages to this approach are sampling bias and non-random sampling (Babbie, 2017). Sampling bias is a concern considering that participants are known acquaintances of other participants in the study, which led to a higher probability that the participants shared similar traits and characteristics (Etikan, Alkassim, & Abubakar, 2016). In addition, the study was limited to parents of children aged 18 years or younger. The participants spoke English, resided in a large Midwestern city in the United States, and only three subjects were different races. Thus, the sample obtained for this study represented a small subgroup of the entire population. The results are not generalizable to all parents in various regions who speak other languages.

Another limiting factor is the study's guarantee of confidentiality, considering the chosen sampling strategy limits confidentiality and privacy (Babbie, 2017). To address privacy, I limited the possibility that others would see participants taking part in research activities or would hear information that is shared in an interview. This strategy was accomplished by conducting all interviews in a private location where conversations could not be seen or heard. Additionally, each interview were arranged on different dates, so there is no potential for participants to encounter other participants. To ensure confidentiality, I de-identified all participant information and demographics. Participants were assigned a number. These number were referenced during any data summaries. A list of participants and corresponding assigned numbers were stored in the Atlas.ti 8 QDA using password-protected encryption. Data was stored on a password-protected hard drive.

The selected approach of phenomenology had the potential for researcher bias, considering this approach requires researcher interpretation. To reduce the possibility of research bias, it required collaboration and review with colleagues, which can be time-consuming and laborious (Patton, 2015). To assure the strategies of validity, a reflective journal was generated, and comparisons of potential bias were contrasted with the research findings. In Vivo coding, was chosen to ensure an accurate depiction of the participants' perspectives. This coding is formulated directly from the participants' statements. In addition, I took measures to ensure that my agenda of vaccine promotion did not influence research findings. This strategy was accomplished through an expert panel assessment. My interview questions were critiqued to ensure that no potential bias language such as ambiguous words, gender bias, racial/ethnic bias, and manipulative terminology was exhibited in the interview guide. The study findings are exclusively based on the participants' statements, which resulted in objective and factual data.

Recommendations

Results from this study demonstrated similar results to Kubin (2019), in that inadequate vaccine information was found as the primary cause for vaccine hesitancy, vaccine refusal, and parent's indecisiveness. The study results illustrated how parents continually expressed the need for additional information. It was evident that the lack of vaccine information resulted in the concept that vaccines are not recommended or necessary (Mckee & Bohannon, 2016; Ventola, 2016). Healthcare provider communication is imperative to skewing vaccine-hesitant parents' perceptions. Studies such as Opel, Mangione-Smith, Robinson, Heritage, DeVere, and Salas (2015) emphasized that provider-parent communication is a critical component in the decision to vaccinate children. Opel and colleagues cross-sectional observational study investigated how communication behaviors influence vaccine acceptance and visit experience. The research showed that there is an inverse relationship between acceptance and visit experience, meaning that presumptive formatted dialogue increases acceptance but decreases visit experience.

If providers communicate supportive emotions that convey empathy, compassion, understanding, and sympathy, these increases mutual trust and respect (Connors et al., 2017; Gillespie, Kelly, Duggan, & Dornan, 2017). This study supported the findings of a positive association between supportive conversation and adherence to vaccination guidelines (Fuzzell et al., 2018). Therefore, it is imperative to ensure that provider communication demonstrates mutual trust and respect. This study illustrated similar results with other studies in that in accentuated the importance of identifying the determinants in hesitant subgroups (Butler & MacDonald, 2015; Dube, Gagnon, MacDonald, 2015; Jarret, Wilson, O'Leary, Eckersberger, & Larson, 2015; Nowak, Gellin, MacDonald, & Butler, 2015). The identification was initiated by obtaining the perspectives of parents' perception surrounding how their healthcare experiences have influenced their decision-making process and what they thought of the current strategies which promote vaccines. The literature review implied the imperative nature of gaining a collective understanding of the population subgroups and determining the root causes of hesitancy (Bednarczyk, 2018; Eskola, Ducos, Schuster, & MacDonald, 2015).

The establishment of rapport will lead to open communication and discussions amongst healthcare providers and parents. This relationship and strategy of listening to parents' concerns will lead to tailoring evidence-based strategies to suit individuals. Research trials have demonstrated that patient decision aids support decision-making by providing information, assisting people in clarifying values, and guiding them through the decision-making process (Witteman, 2015). When providers consider and demonstrate respect for values and collaborate with individuals versus dominating healthcare decisions, this strategy results in increasing vaccine compliance. Therefore, the implications of this study recommend improving communication between provider/parent, learning the primary concerns, and providing parents with tools to aid in the decision making process. Shourie et al., (2013) study on web-based aids illustrated how aids led to a 100% compliance rate with vaccinations.

Due to the limitations of this study, a comparative study of other parents in various geographical locations, as well as comparative studies with minority parents, would provide further insight into how parents' perceptions of healthcare influence their decisions to vaccinate. Studies of parents with various cultures could add additional insights to various considerations that come with the decision making process. Future studies can encompass a broader recruitment range, as this study was limited to a large Midwestern city in the United States.

Implications

Positive social change is delineated as the potential of research to exert positive changes for the betterment of individuals and society. The implications of this research study assist in promoting positive social change by informing healthcare entities about how healthcare experiences influence parents' decision-making process regarding vaccines and how this group perceives the current strategies promoting vaccines. Findings from this study can impact public health strategies' to promote and increase vaccination rates. From an individual level, this study may assist in informing and educating healthcare practitioners and entities promoting vaccines on creating efficacious vaccine promoting strategies. The study results emphasized that participant treatment and holistic information was imperative to accepting vaccination. Diseases may be reduced if education is presented in a way that empowers and aids parents in their decision-making process.

Organizational-Level Implications

The results of this study could be used to inform healthcare organizations in the Midwestern Regions of the United States. Entities that might benefit from the knowledge of this study include pediatrician offices, wellness clinics, family practice offices, and medical programs. The research findings can be dispersed to health educators and healthcare professionals through professional development opportunities and training sessions. There is potential for these entities to provide more information to parents. The hope is that there will be increased information provided to parents to guide their decisions to vaccinate their children. All-encompassing education is essential to increasing parents' knowledge. Healthcare providers can use the time parents wait to see practitioners as an opportunity for educators to provide parents with information regarding vaccines. This strategy increases the time spent with parents' to address their concerns and needs, which hopefully will lead to increased compliance.

Conclusion

As vaccination rates and compliance decrease, it remains imperative for healthcare providers to understand why parents' are deciding not to vaccinate their children. Based on the data and themes formulated from this study, I concluded that the major influencing factors that prevent parents from vaccinating include criticism, lack of transparency, and diminished treatment. Parents desire knowledge and want to be informed of all the facets of vaccines. This knowledge is significant as it can assist providers in creating strategies that work to promote vaccines. Public health has established the rise of health disparities and diseases. Vaccinations are the key to controlling diseases. If providers are able to create and tailor education to fit the needs of vaccine-hesitant parents, there is a chance of improving compliance rates when parents perceive vaccines as effective and safe methods to preventing disease in their children.

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Appendix A: Research Questions and Interview Guide

Research Questions

1. How does healthcare experiences of vaccine-hesitant parents influence their healthcare decisions to vaccinate their children?
2. How do vaccine-hesitant parents perceive the current strategies promoting vaccinations for their children?

Interview Guide

The interview guide generated for this study will address the various aspects of the theory of reasoned actions, including one's intention to perform behaviors, attitudes, subjective norms, and external variables that influence parent's decisions to vaccinate their children.

Intention to Perform Behaviors

1. Describe how your interactions with your child's health practitioner motivated or discouraged you to vaccinate your children.
2. During your appointment, did your child's practitioner emphasize the consequences of vaccinating or not vaccinating your children? If so, how did this information influence your intention to vaccinate or not vaccinate your children?

Attitudes

1. Please describe your relationship with your child's healthcare provider.
2. How have the experiences that you've had with your child's healthcare provider influence your decision to follow their recommendations on vaccinations?
3. Based on your exchanges with your child's healthcare provider, what would you consider are the advantages of getting your children vaccinated?

4. What are the disadvantages of getting your children vaccinated?
5. Did the information that your child’s healthcare practitioner provided give you a perception that vaccinations are effective in preventing diseases? If so, why or why aren’t vaccines effective?

Subjective Norms

1. How did your child’s health practitioner describe immunization to you during your appointment?
2. How did their perceptions influence your decision to vaccinate your children?
3. Do you receive judgment from your child’s healthcare practitioner if your decision making did not align with their views or stated values? If so, please explain.
4. Do the health practitioner’s perceptions give you an impression of social pressure to vaccinate or not vaccinate your children? Please describe why or why not.

External Variables

1. What are your perception of current healthcare practitioner strategies such as myth sharing, fact sharing, and vaccine-preventable disease data information sharing to promote vaccinations?
2. What resources do you find helpful when you are making healthcare decisions to vaccinate your children?
3. What do you find deters you from accepting vaccinations for your children?

Prompts

Prompts will be included in the interview. The utilization of prompts will be based on how fort-coming and communicative each participant is.

1. Tell me more about your experience.
2. What was that like for you?
3. Please provide an example.

Appendix B: Screening Questions

The purpose of these screening questions is to assess the prospective participants' background and characteristics. These screening questions will be conducted via telephone to ensure that participants meet the study's inclusion criteria and that there are no exclusions preventing candidates from participating in the study.

1. How many children reside in your household?
2. What are the ages of the children in your household?
3. How many of these children do you make medical decisions for?
4. Does an alternative healthcare practitioner provide care for your children?
5. What is the highest level of education you have obtained?
6. What is your primary language?
7. Do you have any language barriers? Will you require a translator?
8. Have you declined or delayed immunizations for your children?
9. Can you describe your attitudes towards vaccinations?
10. Are you capable of providing informed consent?
11. Can you describe the meaning of informed consent?

Appendix C: Demographic Information

Demographic Information

Participant Assigned Number:

Gender:

Age of Children:

Number of Children in Household:

Education Level of Participant:

Age:

Marital Status:

Race of Participant:

Participant’s Primary Language:

Appendix D: Expert Panel for Qualitative Instrumentation

Instructions: Please review the interview guide and respond to the following questions regarding the validity and potential reliability for the qualitative research topic of “Vaccine Hesitancy: Parents’ Perceptions of Healthcare Influencing Decisions to Vaccinate Children.”

Validity Evaluation

1. Are the interview questions clear and easy to understand?

[ ] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

2. Does the interview questions convey any potential bias language such as ambiguous words, gender bias, racial/ethnic bias, and manipulative wording of an item?

[ ] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

3. Does the interview questions elicit participants to convey detailed descriptions of their experiences of healthcare and views on vaccination strategies?

[ ] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

4. Is the intent of the research topic of “Vaccine Hesitancy: Parents’ Perceptions of Healthcare Influencing Decisions to Vaccinate Children,” adequately reflected in the data collection instrument/interview guide?

[ ] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

Suggested Revisions:

5. Does the qualitative instrument adequately represent the constructs in purports to represent?

[ ] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

6. Are all the qualitative instrument content easily comprehended for all participants?

[ ] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

Reliability Evaluation

1. Is the qualitative instrument internally consistent with each constructed being examined?

[ ] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

2. Is there anything about the interview guide/questions that would lead you to believe that this instrument would not consistently measure the constructs?

[ ] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

Suggested Revisions:

Please provide additional feedbacks, comments, suggestions for improvements, and thoughts regarding validity and reliability for this qualitative instrument:

Printed Name of Panel Member:
Title:
Signature:
Date:

Appendix E: Recruitment Letter

September 6, 2019

Re: Participant Invitation
Dear potential research participant,

My name is Patricia Harris. I am a student at Walden University's doctoral program. I have chosen to conduct my dissertation research on barriers to childhood immunization. Routine immunizations are responsible for saving numerous children's lives from vaccine-preventable diseases. However, low immunization rates continue to rise, resulting in the re-emergence of diseases. In this study, I want to examine the perception of adults who have delayed or refused vaccinations in regards to their healthcare experiences. I want to determine how their experiences influence their healthcare decisions to vaccinate their children and their perception of the current strategies to promote vaccination for children. My study intends to improve the research on understanding why adults have reservations against vaccinations.

Participation in this study is voluntary. All responses and identities will be kept confidential. Participation can be withdrawn at any point of the study. Please indicate if you are willing to participate by sending an email confirming your willingness to participate. I will then contact you to ensure you meet the study's inclusion criteria. Once that has been validated, I will send an "Informed Consent Statement" for you to complete. This form permits me to conduct interviews.

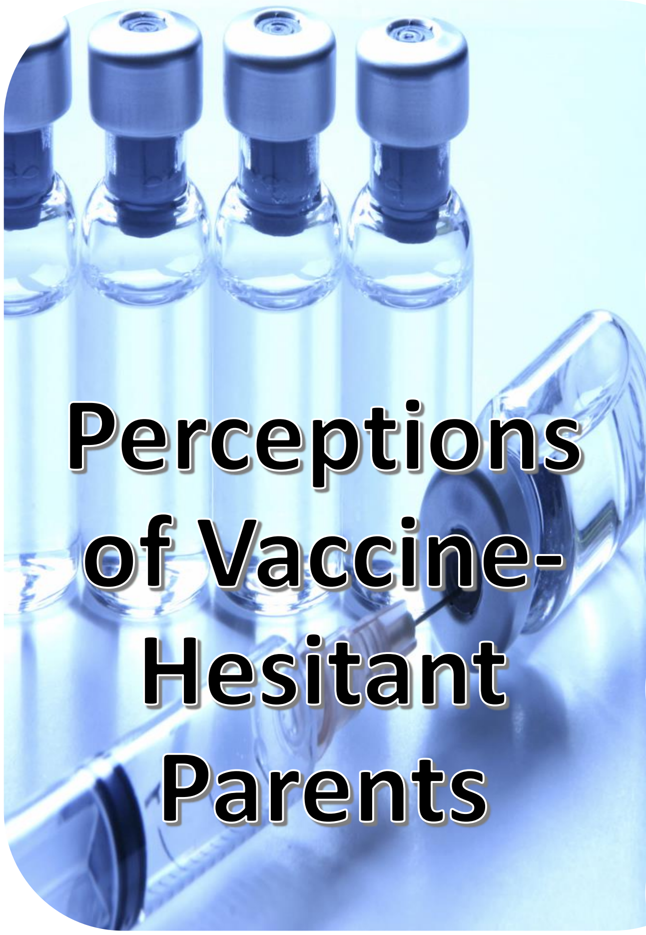
The interview process will commence after I have received your consent forms. If you have any further questions, do not hesitate to contact me by phone at [redacted] or email at [redacted].

Thank you for your consideration,

Patricia F. Harris MSN RN
[address redacted]

Phone: [redacted]
Email: [redacted]

Appendix F: Recruitment Flyer



Perceptions of Vaccine-Hesitant Parents

Have you....

Refused or delayed vaccines?

Do you have children under 18?

Share your views on vaccination.

Speak Up!

Personalized interviews!

Discuss your experiences of healthcare.

Talk about your thoughts on vaccine strategies.

Interested? Contact Patricia Harris at [redacted] or email at [redacted]

This research study will be conducted by Patricia Harris, a doctoral candidate at Walden University, to meet the requirements of a dissertation.

Appendix G: Expert Panel Feedback

Instructions: Please review the interview guide and respond to the following questions regarding the validity and potential reliability for the qualitative research topic of "Vaccine Hesitancy: Parents' Perceptions of Healthcare Influencing Decisions to Vaccinate Children."

Validity Evaluation

1. Are the interview questions clear and easy to understand?

[ ] Yes

[X] No (If no is indicated, please provide an explanation below) The one question that I wasn't sure could be understood by the participants involved various strategies employed by health care providers (myth, fact, data). Those may need to be asked separately or have a prompt that unpacks what each strategy looks like to the parent in the consulting room.

Rationale:

2. Does the interview questions convey any potential bias language such as ambiguous words, gender bias, racial/ethnic bias, and manipulative wording of an item?

[ ] Yes

[X] No (If no is indicated, please provide an explanation below)

Rationale:

3. Does the interview questions elicit participants to convey detailed descriptions of their experiences of healthcare and views on vaccination strategies?

[X] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

4. Is the intent of the research topic of "Vaccine Hesitancy: Parents' Perceptions of Healthcare Influencing Decisions to Vaccinate Children," adequately reflected in the data collection instrument/interview guide?

[X] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

Suggested Revisions:

5. Does the qualitative instrument adequately represent the constructs in purports to represent?

[X] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

6. Are all the qualitative instrument content easily comprehended for all participants?

[ ] Yes

[X] No (If no is indicated, please provide an explanation below) The same as above, and for a few other questions, I tried to provide some adjustments to enhance clarity.

Rationale:

Reliability Evaluation

1. Is the qualitative instrument internally consistent with each constructed being examined?

[X] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

2. Is there anything about the interview guide/questions that would lead you to believe that this instrument would not consistently measure the constructs?

[ ] Yes

[X] No (If no is indicated, please provide an explanation below)

Rationale:

Suggested Revisions:

Please provide additional feedbacks, comments, suggestions for improvements, and thoughts regarding validity and reliability for this qualitative instrument:

Printed Name of Panel Member: M. Laurel Walsh, MFA, EdD
Title: Academic Coordinator
Signature: M Laurel Walsh
Date: January 6, 2020

Instructions: Please review the interview guide and respond to the following questions regarding the validity and potential reliability for the qualitative research topic of "Vaccine Hesitancy: Parents' Perceptions of Healthcare Influencing Decisions to Vaccinate Children."

Validity Evaluation

1. Are the interview questions clear and easy to understand?

[ ] Yes

[X] No (If no is indicated, please provide an explanation below)

Rationale: Some of the questions are written in a manner more complicated than they need to be. Some require minor changes in language to improve their clarity.

2. Does the interview questions convey any potential bias language such as ambiguous words, gender bias, racial/ethnic bias, and manipulative wording of an item?

[ ] Yes

[X] No (If no is indicated, please provide an explanation below)

Rationale: 1. Some of the questions seem to assume that there have been negative interactions, this should not be assumed in a qualitative study. 2. Some of the questions ask participants to describe someone else's perceptions. These are not valid questions because the participants cannot possibly know someone else's perceptions, they can only know their actions and behaviors.

3. Does the interview questions elicit participants to convey detailed descriptions of their experiences of healthcare and views on vaccination strategies?

[X] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

4. Is the intent of the research topic of "Vaccine Hesitancy: Parents' Perceptions of Healthcare Influencing Decisions to Vaccinate Children," adequately reflected in the data collection instrument/interview guide?

[X] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

Suggested Revisions:

5. Does the qualitative instrument adequately represent the constructs in purports to represent?

[X] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

6. Are all the qualitative instrument content easily comprehended for all participants?

[ ] Yes

[X] No (If no is indicated, please provide an explanation below)

Rationale: Some of the questions ask about specific strategies that would require the participant to either understand the jargon (i.e. "myth sharing" etc.) or the researcher would need to define what the jargon means in order to obtain a valid response to the question.

Reliability Evaluation

1. Is the qualitative instrument internally consistent with each constructed being examined?

[ ] Yes

[ ] No (If no is indicated, please provide an explanation below)

Cannot answer this question because internal consistency reliability is a characteristic of surveys that are scored quantitatively. Unless, you are planning on recoding open-ended responses with a numerical value.

Rationale:

2. Is there anything about the interview guide/questions that would lead you to believe that this instrument would not consistently measure the constructs?

[X] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale: Lack of clarity in the phrasing of some of the questions and the use of jargon.

Suggested Revisions: All of my recommended revisions are in the attached copy of the interview guide.

Please provide additional feedbacks, comments, suggestions for improvements, and thoughts regarding validity and reliability for this qualitative instrument:

Printed Name of Panel Member: Maria M. Ojeda, DNP/PhD
Title: Core Faculty
Signature: M. Ojeda
Date: 01/04/20

Instructions: Please review the interview guide and respond to the following questions regarding the validity and potential reliability for the qualitative research topic of "Vaccine Hesitancy: Parents' Perceptions of Healthcare Influencing Decisions to Vaccinate Children."

Validity Evaluation

1. Are the interview questions clear and easy to understand?

[x] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

2. Does the interview questions convey any potential bias language such as ambiguous words, gender bias, racial/ethnic bias, and manipulative wording of an item?

[x] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

3. Does the interview questions elicit participants to convey detailed descriptions of their experiences of healthcare and views on vaccination strategies?

[x] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

4. Is the intent of the research topic of "Vaccine Hesitancy: Parents' Perceptions of Healthcare Influencing Decisions to Vaccinate Children," adequately reflected in the data collection instrument/interview guide?

[x] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

Suggested Revisions:

5. Does the qualitative instrument adequately represent the constructs in purports to represent?

[x] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

6. Are all the qualitative instrument content easily comprehended for all participants?

[x] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

Reliability Evaluation

1. Is the qualitative instrument internally consistent with each constructed being examined?

[x] Yes

[ ] No (If no is indicated, please provide an explanation below)

Rationale:

2. Is there anything about the interview guide/questions that would lead you to believe that this instrument would not consistently measure the constructs?

[ ] Yes

[x] No (If no is indicated, please provide an explanation below)

Rationale:

Suggested Revisions:

Please provide additional feedbacks, comments, suggestions for improvements, and thoughts regarding validity and reliability for this qualitative instrument:

Printed Name of Panel Member: Dr Carla G Riemersma
Title: Contributing Faculty Walden University
Signature: Dr Carla Riemersma
Date: 1-09-20