

QUALITY OF PRENATAL CARE IN THE UNITED STATES: PERCEPTIONS OF
RESETTLED BHUTANESE-NEPALI REFUGEES

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By

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ABSTRACT

The Bhutanese-Nepali community in the United States, estimated to be greater than 100,000, has been fleeing religious and ethnic persecution since the 1980s. Ohio ranks fifth in the United States in the number of resettled Bhutanese-Nepali refugees. Studies have shown refugee women have worse pregnancy outcomes than non-refugee women. However, early and optimal prenatal care can improve pregnancy outcomes. This project aimed to (a) evaluate the perceived quality of prenatal care among resettled Bhutanese-Nepali refugees and (b) explore relationships between multiple demographic variables and perceived quality of prenatal care. This descriptive, cross-sectional, mixed-methods survey design project measured prenatal care perceptions among resettled Bhutanese-Nepali refugees who received their prenatal care in a large Central Ohio teaching hospital. Study participants were at least 18 years old and had delivered a full-term newborn within the past six weeks. Participants completed the Quality of Prenatal Care Questionnaire (QPCQ), a 46-item tool utilizing Likert-type questions, along with a demographic form and additional qualitative questions. The tool developer provided the Nepali-language version of the QPCQ. A total of 49 Bhutanese-Nepali women completed the study. The average participant was 29 years old, had two living children, was married, and had been in the United States for six years. Nearly half (49%) had given birth at least once in Nepal. Participants highly rated the quality of their prenatal care with a mean QPCQ score of 4.17/5. The Information-Sharing Subscale received the highest mean score ($M = 4.3$), indicating high-quality

prenatal care. The lowest scored subscale was the Approachability Subscale ($M = 4.09$), which asked participants if providers were abrupt, rushed, and made them feel like they were wasting their time. No significant relationships were found between QPCQ total or subscale scores and: age, number of years in the U.S., number of children born in the U.S., or total number of living children. The findings indicate patients feel they are being adequately educated by their providers and are included in the decision-making process. Providers can improve care by taking more time with patients and making an active effort not to seem rushed during prenatal appointments.

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And to the Bhutanese-Nepali refugees in Ohio and across the country: may the American dream live on in you.

TABLE OF CONTENTS

| | |
|---------------------------------------|----|
| Chapter I..... | 1 |
| Introduction..... | 1 |
| Statement of the Problem..... | 3 |
| Clinical Question | 4 |
| Organizational Needs Assessment..... | 5 |
| Organizational Assessment Model | 6 |
| Conceptual Framework..... | 10 |
| Definition of Terms..... | 11 |
| Conclusion | 12 |
| Chapter II | 13 |
| Review of the Literature | 13 |
| Introduction to Search Criteria..... | 13 |
| Literature Review and Critique..... | 14 |
| Rationale for Project | 27 |
| Chapter III..... | 28 |
| Methods..... | 28 |
| Design | 28 |
| Primary and Secondary Aims | 28 |

| | |
|---|----|
| Population and Setting | 28 |
| Measurement Tools..... | 29 |
| Data Collection Procedures and Timeline | 32 |
| Data Analysis | 33 |
| Conclusion | 34 |
| Chapter IV..... | 35 |
| Analysis..... | 35 |
| Characteristics of Participants..... | 35 |
| Project Aims..... | 36 |
| Conclusion | 41 |
| Chapter V | 43 |
| Discussion and Conclusions | 43 |
| Strengths | 47 |
| Limitations | 47 |
| Implications for Practice | 50 |
| Further Study | 50 |
| Conclusions..... | 51 |
| Appendices..... | 52 |
| References..... | 57 |

Chapter I

Introduction

More than 17,000 refugees worldwide have been resettled in the Columbus, Ohio metro area since 1983 (Community Research Partners, 2015). While the population includes refugees from many different continents, most are Somali or Bhutanese-Nepali (Community Research Partners, 2015). The resettled Bhutanese-Nepali community in Central Ohio, now estimated to be as high as 20,000 through primary and secondary migration, has been fleeing religious and ethnic persecution since the 1980s (Community Research Partners, 2015). Bhutan's leadership change led to a nationwide ethnic cleansing, which forced the Bhutanese-Nepali, ethnically Nepali, to leave Bhutan for refugee camps in Nepal (Kue et al., 2017). Ohio ranks fifth in the United States in the number of Bhutanese-Nepali refugees who have been resettled, and secondary migration has caused those numbers to rise even higher (Kue et al., 2017). Community leaders now report that the Columbus metro area has the largest Bhutanese-Nepali population in the United States (Community Research Partners [CRS], 2017).

Adequacy of Prenatal Care

Early and optimal prenatal care provides an appropriate assessment of risk and offers support throughout the pregnancy to improve outcomes (Gadson et al., 2017). In the United States, adequate prenatal care consists of an initial prenatal visit within the first trimester, between 9 and 15 return prenatal visits, and a postpartum visit following delivery (American Academy of Pediatrics [AAP], American College of Obstetricians and Gynecologists [ACOG], 2017). Until recently, the definition of adequate prenatal care was only focused on two quantitative measures: the timing of the first prenatal visit and the total number of visits during

the pregnancy (Alexander & Kotelchuck, 2001). Research has demonstrated, however, that the quality of prenatal care provided is a more significant predictor of prenatal care usage and positive outcomes than quantitatively measured adequacy of care (Alexander & Kotelchuck, 2001).

Quality of Prenatal Care

A national shift from the measure of adequacy to quality was elevated in 2001 with the Institute of Medicine (IOM) report, *Crossing the Quality Chasm: A New Health System for the 21st Century*. This groundbreaking report was a follow-up to the 1999 IOM report *To Err Is Human*, which painted a grim picture about patient safety within the U.S. healthcare system (Berwick, 2002). With the publication of the *Crossing the Quality Chasm* report, the IOM made comprehensive recommendations for improvements in six key areas of health care performance: safety, timeliness, effectiveness, patient-centeredness, efficiency, and equity (Berwick, 2002). The report also started a national discussion about quality when it defined quality as "the degree to which health services for individuals and populations increased the likelihood of desired health outcomes and are consistent with current professional knowledge" (IOM, 2001). This new focus on patient-centered care led to the assertion that quality care must respect the patient's values, culture, and information needs (Berwick, 2002).

The move toward patient-centeredness as a key component of quality health care continued with the 2005 report by the Agency for Healthcare Research and Quality (AHRQ), the *U.S. National Healthcare Quality Report*. In this report, the AHRQ outlined the progress made in four of the key areas initially identified by the 2001 IOM report: effectiveness, patient safety, timeliness, and patient-centeredness (AHRQ). The report specifically identified patient-centeredness as a critical component of overall health care quality. The report also asserted that

many of the quality indicators outlined in the IOM had eroded in recent years (AHRQ, 2005).

When looking specifically at patient-centeredness, the report offered this call to action:

"...approaches to care that rely on building a provider-patient relationship, improving communication techniques, fostering a positive atmosphere and promoting patients to participate actively in patient-provider interactions have been shown to improve the health status of patients" (AHRQ, 2005, p. 79). These care components related to a focus on patient-centeredness have come to serve as an essential measure for quality healthcare.

Statement of the Problem

One of the challenges that face newly-settled refugees is successfully navigating the healthcare system. There has been a growing understanding that to overcome disparities in access to prenatal care, there needs to be a better understanding of women's prenatal care experiences and how quality can be assessed and improved (Wheatley et al., 2008). Prenatal care is critical, as studies have shown that refugee women tend to have worse health outcomes when compared to non-refugee women within the same population (Kentoffio et al., 2016). Higher rates of low birth weight, cesarean deliveries, and stillbirth have been demonstrated among populations of refugee women (Flenady et al., 2016; Heslehurst et al., 2018; Kentoffio et al., 2016). Early access to high-quality prenatal care has been shown to reduce prematurity, low birth weight, and infant and maternal mortality and morbidity (Fuentes-Afflick, 2014). Foreign-born women in the United States are more likely to have limited or no access to health insurance, live in poverty, and have fewer years of education (Kue et al., 2017). It is also recognized that refugees often had inadequate healthcare access in their country of origin before they arrived in the United States (World Health Organization, 2017). Refugees frequently have limited English

proficiency, low health literacy, inadequate access to transportation, and other cultural barriers that inhibit their ability to seek medical care (Fellmeth et al., 2017; Pimental & Eckardt, 2014).

Offering quality, accessible prenatal care is vital to ensure that all women receive the prenatal care they need to have a healthy pregnancy and healthy baby (Gadson et al., 2017). The best way to ensure that quality care is provided is to understand patients' perceptions and how their prenatal care is meeting their needs and expectations (Wheatley et al., 2008).

Clinical Question

One way to assess the quality of prenatal care among the refugee population is to ask them how they perceive the care that has been provided. A concise and effective way to outline a clinical question's components is by using the mnemonic "PICOT" (Melnik & Fineout-Overholt, 2019). The question will use the PICOT form (P: population, I: intervention, C: comparison, O: outcome, T; timeframe) (Melnik & Fineout-Overholt, 2019). The clinical question involves exploring the perceptions of resettled Bhutanese-Nepali refugee women in Central Ohio on their prenatal care experiences since arriving in the United States. The clinical question for the Doctor of Nursing Practice (DNP) scholarly project is as follows..." In the resettled Bhutanese-Nepali population in Central Ohio, what are the perceptions about the quality of prenatal care they received?"

The sample will be drawn from the population (P) of Bhutanese-Nepali refugee women in Central Ohio who have given birth within six weeks. There will be no intervention (I) or comparison (C) as part of this project. The outcome (O) will include identifying Bhutanese-Nepali refugees' perceptions on the quality of prenatal care they received in Central Ohio. The time frame (T) for this project will occur during the postpartum period, within six weeks of delivery.

Organizational Needs Assessment

An organizational needs assessment was performed in October of 2019 in the Obstetrics and Gynecology (OB/GYN) Clinic. During this assessment, the Principal Investigator (PI) identified a lack of information on the large Bhutanese-Nepali patient population. This population composes a large percentage of the daily patient schedule, yet little information exists to assist the staff in providing quality prenatal care that meets their specific needs.

Project Setting: System and Clinic

The OB/GYN Clinic is part of a health system comprised of four hospitals and various medical offices throughout the region. It is part of one of the largest Catholic health care systems in the nation. The hospital serves a mix of patients from nearby wealthy and middle-class suburbs, but also serves a large population of recent immigrants and others from relatively low-income areas. One of the hospital's key priorities is maternal/infant health. A city initiative to improve infant and maternal health has identified priority zip codes in which to focus intervention. The hospital serves a large portion of this priority area, which demonstrated a 2020 infant mortality rate of 9.8% and a preterm birth rate (< 37 weeks' gestation) of 12.3%, both well above the state and national average (City of Columbus, 2021). Speaking to the adequacy of care, only 66% of women in the priority area received prenatal care during the first trimester of their pregnancy (City of Columbus, 2021). The OB/GYN Clinic is located in a medical office building behind the hospital and is primarily staffed by advanced practice registered nurses (APRNs). The clinic averages 800 patient visits per month, with the majority being low-income. The clinic is one of the primary providers of immigrant and refugee prenatal care in the area.

Resettled Bhutanese-Nepali Refugees

The Centers for Disease Control (CDC) outlined specific needs unique to the Bhutanese-Nepali refugee population in their *Immigrant, Refugee, and Migrant Health Profile* (2021). Priority health conditions for this population include anemia, Vitamin B12 deficiency, and mental health concerns, all of which can have a significant impact on the health of a pregnancy (CDC, 2021). Another consideration for this population is a widely-held belief in traditional healers or shamans, *dhami-jakhri*, and their inclination to seek medical care only in response to a serious health crisis (CDC, 2021). Illness is often viewed as a result of evil spirits or an imbalance of passions (Maxym, 2010).

Women living in Nepali refugee camps are required to receive routine prenatal care, so those women who had previous births have some familiarity with the process (Maxym, 2010). Preventive health care, however, is not common practice, so U.S. health care providers are often tasked with educating patients on even the most common health concepts, like pap smears, mammograms, and well-child care (Maxym, 2010). Although pregnancy is a qualifying health condition to enroll in the Ohio Medicaid program, many patients do not understand available state and federal health insurance programs. Refugees receive seven months of Medicaid coverage when they arrive in the U.S., but that coverage often expires before they have learned to navigate the complex health care system, contributing to a lack of access (CDC, 2021).

Organizational Assessment Model

Theorist Edgar Schein developed the 'Organizational Culture Model' as a way to evaluate the values and beliefs held within an organization (Schein, 2017). Any healthcare organization's mission is to provide quality care to its patients and provide a safe and healthy working environment for its employees. How those ends are achieved varies across different systems and

can be affected by numerous factors. These factors are often evaluated in terms of the organization's culture (Schein, 2017). Although there are many aspects that make up the culture of any organization, Schein (2017) most succinctly defines the process as "the accumulated shared learning of that group as it solves its problems of external adaptation and internal integration" (p. 6). How successful the organization is in meeting these demands and solving its problems determines how well it will meet its mission in providing quality healthcare.

The process of evaluating an organization's culture involves analyzing aspects of the organization at varying degrees or "levels." Schein (2017) outlines three levels of analysis that help the observer to get a better idea of the organization's culture. These three levels include artifacts, espoused beliefs and values, and basic assumptions (Schein, 2017). With these three levels of analysis, the outside observer will develop a sense of the organization or group's cultural elements. The PI observed the culture of the OB/GYN Clinic during the organizational needs assessment.

The first level of cultural analysis that would be observed is the artifacts of the organization. Artifacts, according to Schein (2017), are the tangible elements of the group, including items that can be seen or heard. Artifacts are the easiest level to observe, but can be difficult to understand without further analysis. The most obvious artifacts to be observed in the OB/GYN Clinic are noticed immediately upon entering the office. Photographs line the walls of the waiting areas and hallways that depict images of pregnant women and birth. These births are being attended by midwives, several of whom are still employees of the clinic and care for the current patient population. The photographs are in black and white, are tastefully done, and set the tone for a place where women and their growing families are encouraged to feel safe and welcome.

Additional visual artifacts that might be noticed by the observer are posters in key places throughout the clinic that promote healthy behaviors in the pregnant population. Important information about nutrition, infant sleep, and breastfeeding are conspicuously placed in waiting areas, hallways, and even in exam rooms. Luria and Rafaeli (2008) draw a comparison between organizational artifacts and communication, asserting that observed artifacts in an organization can be seen as a way for employees to communicate with each other and with visitors. The OB/GYN Clinic uses these artifacts in similar fashion, as a means of communicating that nutrition, safe sleep, and breastfeeding are priorities held by the APRNs and other providers. The pregnancy and birth photographs, perhaps interpreted as an artistic expression by the casual observer, are a way for the clinic staff to communicate a sense of understanding and respect to the patients in a way that transcends language and cultural barriers.

The second level of the organizational theory described by Schein (2017) is that of espoused values and beliefs. This level of observation involves the philosophy or ideology of the organization and leads to a deeper understanding of the culture and environment. Schein (2017) asserts that espoused values and beliefs are articulated in a way that members of the group see them as guiding principles and pass them on directly to new members who join the organization. The espoused beliefs held by staff at the OB/GYN clinic firmly involve their perception of a "calling" that leads them to serve patients who fall into a category that is underserved. This belief held by the clinic staff is congruent with the formal mission of the hospital itself, which lists "Commitment to Those Who are Poor" and "Social Justice" as cardinal values and guiding principles. These priorities perhaps differ from most of the other OB/GYN offices in the area that attract patients who are educated and of middle- or upper-class socioeconomic status. The staff in the clinic carry a deep sense of pride in the work they do and recognize the unique nature

of their work environment. New and potential members of the staff are evaluated and carefully vetted to ensure that they hold similar values when it comes to caring for vulnerable populations.

Another important espoused value held by clinic staff is the importance of empowering patients to be stewards of their own healthcare. While the patients are often from a group or culture that is underserved with greater needs, the clinic staff recognizes the importance of giving patients the tools to manage their own healthcare decisions. Patient autonomy is an important and commonly held value by all levels of clinicians within the clinic. It is often this intersection of the main values of an organization that defines the espoused beliefs and values (Wilson et al., 2004). The OB/GYN clinic staff stress the importance of care for the most vulnerable without losing sight of patient autonomy and empowerment. Any observer hoping to evaluate the culture of this organization would quickly learn that the espoused values and beliefs are firmly held by all members of the group.

The third and final level of culture outlined by Schein (2017) consists of the basic assumptions held by individuals within an organization. Basic assumptions are commonly held beliefs that are so prevalent within the organization that they are often taken for granted. They are known by all parties of the organization, but are so innate that they are rarely discussed or verbalized and are not tangible. A major assumption among the APRN and nursing staff of the clinic is putting the patient first at all costs. With limited time and resources, this assumption can at times cause incongruity among staffing, scheduling, and time allotted per patient. The staff is committed to providing each patient with the time they need to fully address their concerns. Although basic assumptions are at the deepest level of organizational analysis, it has been said that these assumptions are what inspires the members of the organization to continue their work

in pursuit of a common goal (Schneider et al., 2012). It is this assumption, that of putting the needs of the patient above all else, that lends itself to the proposed clinical questions.

Conceptual Framework

A conceptual framework provides an organizational structure for the concepts being evaluated in a project (Polit & Beck, 2014). The Donabedian Model of Health Care Quality was developed as one of the earliest conceptualizations of quality assessment and improvement (1966, 1980, 1988, 2005). Through this model, the author developed a set of three interrelated domains that are essential in the assessment of health care quality: structure, process, and outcomes of care (Donabedian, 2005). The three domains of the model are cyclical, meaning each component directly affects the other two (Donabedian, 1988).

Structure

The structural attributes of an organization reflect the setting in which patient care is delivered (Donabedian, 1988). These attributes relate to the physical structure and material resources, the human resources, and the organizational structure of the clinical setting (Donabedian, 1988). The use of an effective Electronic Medical Record (EMR), the education and training of care providers, and the process for peer review and quality improvement are all important components of a structural assessment (Donabedian, 1988).

Process

The assessment of process is an evaluation of how care is given and received (Donabedian, 1988). The method that care providers use to diagnose and treat patients and the ability of patients to seek and access care are both essential components of the clinical process.

Outcomes

The third domain of Donabedian's model is a measure of outcomes and how the other two domains impact health status (2005). Health status was broadly defined by Donabedian as a measure of outcomes, as well as improvements in patient behaviors or knowledge (1988).

Donabedian's model can be used as a framework for evaluating the quality of care provided in multiple patient settings.

Definition of Terms

Defining the research question and the proposed outcomes involves establishing a set of operational definitions that are consistent throughout the project. For this project, a **refugee** will be defined as "someone who has been forced to flee his or her country because of persecution, war, or violence" (United Nations High Commission for Refugees [UNHCR], 2019).

Resettlement, as is the case with the resettled Bhutanese-Nepali refugees of this project, involves the relocation of refugees from an asylum country to another country that agrees to admit them and grant permanent residency (UNHCR-USA, 209). **Quality of healthcare** has been defined by the Institute of Medicine (IOM) as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" (2005). **Perception** was defined by Merriam-Webster as a "quick, acute, and intuitive cognition or appreciation" (2019). **Adequate prenatal care**, as defined by the AAP and ACOG (2017), has been outlined above. The quality of prenatal care will be measured for this project through the use of the **Quality of Prenatal Care Questionnaire (QPCQ)** (Sword et al., 2013).

Conclusion

This chapter has identified the proposed problem, with an overview of the background and why the question is being asked. The specific research question was identified using the PICOT format (Melnik & Fineout-Overholt, 2019). An organizational needs assessment was performed to evaluate the culture of the clinic where the problem has been identified. Finally, the conceptual framework being used to guide this research project was identified and outlined.

Chapter II

Review of the Literature

This chapter provides a review of the literature to answer questions about the quality of prenatal care as perceived by the patients themselves. The specific questions asked include: What are the components of quality prenatal care? How is quality prenatal care measured? These questions are asked and then focused specifically on the quality of prenatal care among refugees and other foreign-born citizens, particularly among the Bhutanese-Nepali population. A review of the literature addressing these questions is included, along with an evaluation of an available tool to measure the quality of prenatal care. A synthesis is also included to evaluate the full body of literature available on this subject, as well as a rationale for further study.

Introduction to Search Criteria

The first step in the literature review was a broad search of terms to gain an understanding of the availability of pertinent data. Two primary databases were searched as part of this process, including the Cumulative Index to Nursing and Allied Health Literature (CINAHL) and PubMed MEDLINE. These databases were chosen due to their focus on literature from nursing and other disciplines within healthcare. Primary search terms for both databases included prenatal care, maternal, antenatal, refugee, immigrant, and Bhutanese-Nepali. Perceptions, experiences, and quality, as well as instrument and psychometric, were then searched to identify tools that measure the quality of prenatal care. Boolean operators were then added to the search terms to include prenatal care OR maternal OR antenatal AND refugee OR immigrant OR Bhutanese-Nepali AND perceptions OR experiences OR quality. The next step of the search was to seek tools to measure prenatal care. Thus, the search was expanded to prenatal

care OR maternal OR antenatal AND perceptions OR experiences OR quality AND instrument OR psychometric. Reference lists from retained literature were also examined for appropriate articles. Exclusion criteria included articles that were not directly related to the purpose of the project or were not available in English. Only journal articles published within peer-reviewed journals were included. Literature about other areas of healthcare provided to refugees or immigrants, while helpful for background information, was not included in the final sample of literature. At the end of this extensive search, 14 articles were retained as the final sample for evaluation, with ten from the CINAHL search and four from PubMed.

Literature Review and Critique

In order to ensure that only high-quality literature was used for the project, each article was evaluated using the Let Evidence Guide Every New Decision (LEGEND) evaluation tool (Clark et al., 2009). This tool utilizes an algorithmic approach to evaluate the quality and strength of the evidence based on the individual study design. When evaluating resources, each type of study design is assigned a number, from one through five. Twelve different types of study design are included. The number one is assigned to the design with the highest level of evidence, the systematic review or meta-analysis. Conversely, study designs that are designated to be at the lowest level of evidence (i.e., guidelines, bench studies, expert opinions, etc.), are assigned the number five. All other methods of study design fall between these numbers and are classified individually. Once placed within a level of evidence, a series of questions guide the researcher through a detailed process of evaluation that leads toward a designation of *a* for a good quality study or *b* for a lesser quality study. In defining the difference between a good quality and lesser quality study, the developers of the LEGEND tool use the guideline commissioned by the Agency for Healthcare Research and Quality (AHRQ) in stating that a

study's quality is defined as "the extent to which all aspects of a study's design and conduct can be shown to protect against systematic bias, nonsystematic bias, and inferential error" (Clark et al., 2009, p. 1055).

Each of the 14 research articles that were identified during the literature search was evaluated using the corresponding LEGEND: Evidence Appraisal of a Single Study algorithm (Cincinnati Children's Hospital, 2006). Only those articles deemed to be good quality and germane to this project's purpose were retained. Once the studies were evaluated individually, the body of evidence, consisting of 14 remaining studies, was assessed using the LEGEND Grading the Body of Evidence tool (Cincinnati Children's Hospital, 2006). The body of evidence was assigned the grade of moderate, due to a single meta-synthesis, along with multiple good quality psychometric studies.

Prenatal Care: Quantity or Quality

The first step in determining the quality of prenatal care within a group of women is to formally define adequate prenatal care. The American Academy of Pediatrics (AAP) and the American College of Obstetricians and Gynecologists (ACOG) identify adequate prenatal care as having an initial prenatal visit within the first trimester, between nine and 15 return prenatal visits, and a postpartum visit following delivery (2017). While the timing of the initiation of prenatal care and routine obstetrical care throughout pregnancy is important, evidence suggests that the quality of the care provided may be even more important than the timing of the care received (Sword et al., 2012). Nearly 25 years ago, Kotelchuck (1994) asserted that when assessing the adequacy of prenatal care, the focus rested only on the timing and quantity of care, not the quality of that care. Contemporary experts, however, argue the importance of quality of care over quantity of care, but there remains no consensus on how quality prenatal care is

defined (Sword et al., 2012). Understanding the components of quality prenatal care is an important step in improving pregnancy outcomes, especially among high-risk populations that experience the most health care disparities (Wheatley et al., 2008).

When measuring the quality of prenatal care, studies have focused primarily on patient satisfaction (Heaman et al., 2014). The problem, however, is that no explicit delineation has been made between satisfaction and quality (Heaman et al., 2014). Heaman et al., in their development of a tool to formally measure the quality of prenatal care, articulate the distinction in saying that "quality is defined as a judgment or evaluation of several dimensions specific to the service being delivered, whereas satisfaction is an affective or emotional response to a specific consumer experience" (2014, p. 2).

Sword et al. (2012) performed a study among five urban centers in Canada using a qualitative descriptive approach to measure the perceptions of a group of patients and health care providers (including obstetricians, family physicians, and midwives). This study received a LEGEND score of 2a, good quality psychometric study (Clark et al., 2009). A total of 80 participants were included in the study, with eight pregnant women and eight providers from each of the five study sites. Semi-structured interviews were held by research assistants at a location of the participant's choosing. Donabedian's Model of Quality Health Care (2005) was used as a foundation of the study to assess patient perceptions of structure of care, clinical care processes, and interpersonal care processes (as cited in Sword et al., 2012, p. 1). Study strengths included a large population sample that ensured data saturation. Limitations of the study mostly involved the lack of ethnic diversity among participants.

The findings of the Sword et al. study (2012) demonstrated that clinical care processes and interpersonal care processes were widely deemed to be more important than the structure of

care when evaluating quality. Factors that emerged included the importance of health promotion efforts by providers to encourage healthy lifestyle choices by their patients, specifically related to tobacco use and appropriate weight gain (Sword et al., 2012). Screening and assessment efforts were viewed as important factors by both the pregnant women and the care providers. The women appreciate this as an important component in reassuring them that their baby and pregnancy are progressing normally (Sword et al., 2012). This naturally leads to the importance of sharing information, as the women reported the value of being involved in their care and consistently given information in a way that is open, honest, and presented in a way that they can understand (Sword et al., 2012). Other aspects of clinical care processes that were identified in the Sword et al. study (2012) included continuity of care, in which women are given the opportunity to build stronger, more positive relationships with their provider. The non-medicalization of pregnancy was identified as a priority for women, many of whom reported a preference for midwifery care because it was seen as being less medical (Sword et al., 2012). Finally, women reported a desire for "women-centered" care, in which providers treated them as equal partners in their pregnancy and recognized the importance of not just their medical needs but their psychosocial needs as well. Providers, who were also interviewed as part of this study, saw this as an important priority as well. One provider reported that health promotion and education is important, but they are cautious 'that it doesn't undermine the sense of the woman being an adult and having other priorities in her life...one size doesn't fit all" (Sword et al., 2012, p. 10).

In evaluating the importance of interpersonal care processes (Sword et al., 2012), themes that emerged from the study include the importance of care providers who are non-judgmental and respectful toward their patients. Providers also acknowledged the importance of providing

non-judgmental care, even when admitting that it's not always easy to do (Sword et al., 2012). Additionally, the women reported that an important part of prenatal care is emotional support, which is demonstrated when health care providers listen, express care or concern, and acknowledge feelings in a therapeutic manner (Sword et al., 2012). Other essential components of interpersonal care processes that were identified include having an approachable style that is engaging and calming and taking the time to allow the women not to feel rushed or hurried during their prenatal visits (Sword et al., 2012). Finally, and perhaps most importantly, the women and the care providers both outlined the need for a meaningful relationship between patient and provider throughout pregnancy (Sword et al., 2012).

Refugee and Immigrant Perceptions of Health Care

Other studies evaluated in the literature review attempted similar measures of quality of care but focused on the unique perceptions of immigrants or refugees. Worabo et al. (2016) examined perceptions of refugees to the U.S. healthcare system as a whole. This study received a LEGEND score of 2a, good quality qualitative study (Clark et al., 2009). Through a series of qualitative focus group interviews held with 39 refugees from Iraq, Eritrea, Bhutan, or Somalia, the Colaizzi phenomenological method was utilized to avoid assumptions or bias on the researchers' part (as cited in Worabo et al., 2016, p. 2). This method involved the transcription of data received from each group session (which utilized professional interpreters for data collection) verbatim by the first author of the study (Worabo et al., 2016). Once the session transcripts were transcribed, a group of the research team (including the first author) independently worked to identify themes and phrases from the transcripts (Worabo et al., 2016). After this was completed, the group met together until a consensus was reached to include the major themes and key phrases from the data (Worabo et al., 2016). Using the Colaizzi

phenomenological method assists in ensuring scientific rigor of the study results (as cited in Worabo et al., 2016, p. 2). The Worabo et al. study (2016) outlined three main themes that emerged across the four groups of refugees. These themes included: (a) conflicting expectations, (b) miscommunication, and (c) level of trust and satisfaction.

The first theme that emerged was related to patient expectations. While recognizing that assimilation to a new country and a new culture is difficult, many refugees compared their new circumstances from their country of origin. Waiting a long time before getting in to see a healthcare provider was an unexpected change from their home country, as were long waiting times in emergency departments (Worabo et al., 2016). They also were less inclined to seek preventive care, as participants did not see the point of seeking medical care unless they were ill, but instead felt that the best methods of health promotion were to keep themselves and their families clean, eat healthy food, and maintain their faith traditions (Worabo et al., 2016).

The second theme that emerged in the Worabo et al. (2016) study was miscommunication with healthcare providers. Without adequate interpreters available, participants reported difficulty in all points of accessing healthcare, including making and keeping appointments and even transportation to their provider's office (Worabo et al., 2016). This lack of communication also impacted their understanding of the insurance system and what benefits were available to them (Worabo et al., 2016). The final theme identified was trust and satisfaction, once again bringing back the importance of building a meaningful patient-provider relationship (Worabo et al., 2016; Sword et al., 2012).

Similar themes emerged in the qualitative retrospective study performed by Wheatley, Kelley, Peacock, and Delgado (2008), who analyzed data from a 1996 federally funded study that aimed to explore health care disparities in Chicago among pregnant women. (Handler et al.,

1996 as cited by Wheatley et al., 2008). The study received a LEGEND score of 2a, good quality qualitative study (Clark et al., 2009). The original study utilized focus groups and included women from multiple organizations that provided prenatal care. Four of the sites were Federally Qualified Health Centers (FQHC) that served patients that mainly were African American, Puerto Rican, or Mexican American. The other site was a county health department that mostly cared for white participants (Wheatley et al., 2008). The study's goal was to address disparities and make policy recommendations for change (Handler et al., 1996 as cited by Wheatley et al., 2008). The 2008 study by Wheatley et al. reexamined the data originally collected to extract information that dealt explicitly with the content and quality of the prenatal care experienced by participants. The three main themes that women identified as aspects of quality care included: (a) communication with the provider and how well they listened and explained information, (b) how well they showed respect during patient-provider interactions, and (c) whether they spent adequate time during the encounter (Wheatley et al., 2008).

Fuentes-Afflick et al. (2014) addressed the issue of quality prenatal care among immigrants and refugees (participants reported birthplaces of Asia and Latin America) but included an evaluation between maternal acculturation and perception of healthcare experiences. This study used a retrospective cross-sectional design and received a LEGEND score of 4a, good quality cross-sectional study (Clark et al., 2009). Using the Interpersonal Processes of Care (IPC) Survey and the Prenatal Interpersonal Processes of Care (PIPC) survey, the researchers conducted a cross-sectional study from two sites within the San Francisco Bay area (Fuentes-Afflick et al., 2014). These tools were selected because they are shown not only to assess patient experiences rather than patient satisfaction and also because the tools have been validated for use in an ethnically diverse population (Fuentes-Afflick et al., 2014). The study participants were

asked about their prenatal care experiences in seven domains related to communication, decision-making, and interpersonal style (Fuentes-Afflick et al., 2014). Maternal acculturation was indeed identified as a factor in perceptions of prenatal care. For instance, women who were less acculturated reported higher levels of satisfaction than those who were more acculturated or U.S.-born, possibly indicating a difference in expectations (Fuentes-Afflick et al., 2014). The central theme identified by the study authors as most important among the participants was the need for patient-centered care where the provider includes the patient in the decision-making process and communicates honestly about healthcare recommendations (Fuentes-Afflick et al., 2014). One limitation of this study was reported as a lack of diversity with all participants from one specific area of California, USA (Fuentes-Afflick et al., 2014).

The previous studies discussed in the review involve participants from within the United States and Canada. Owens et al. (2015) evaluated the patient perceptions of prenatal care among refugee and migrant women in Australia. Study participants immigrated predominantly from the Middle East and Southeast Asia (Owens et al., 2015). This study received a LEGEND score of 2a, good quality qualitative study (Clark et al., 2009). In a qualitative phenomenological study of 12 women in Perth, the authors conducted semi-structured interviews to gather information on participants' opinions and experiences with prenatal care at a community-based antenatal clinic (Owens et al., 2015). Themes that emerged, similar to the studies discussed from within the United States, included the desire for a patient-provider partnership that involves shared decision-making with full disclosure of healthcare information (Owens et al., 2015). Language and communication were important components of prenatal care, with participants reporting that lack of effective communication reduces access to care (Owens et al., 2015). As with previous studies reviewed, the social support gained from a meaningful provider-patient relationship can

help fill in gaps where social support may be lacking in their home or family life. Getting to know their provider (in this case, a midwife) and developing a trusting relationship through continuity of care increased their perception of the quality of their care (Owens et al., 2015). The use of interpreters in this study was cited as both a strength and a weakness, as interpreters allowed the inclusion of non-English speaking participants but also caused concern about interpreter bias (Owens et al., 2015).

A 2014 meta-synthesis by Benza and Liamputtong attempted to identify and evaluate studies that explored prenatal care perceptions and experiences among immigrant women. This meta-synthesis received a LEGEND score of 1a, good quality meta-synthesis (Clark et al., 2009). Fifteen qualitative research studies with publication dates from 2003 to 2013 were reviewed using the Noblit and Hare methodology (Noblit & Hare, 2008 as cited in Benza & Liamputtong, 2014). The studies included in the meta-synthesis were published in six countries and had more than 300 participants from East Africa, the Middle East, and Southeast Asia (Benza & Liamputtong, 2014). The findings of the meta-synthesis were organized into four themes: (a) expectations and experiences of pregnancy/childbirth, (b) experiences of motherhood, (c) conflict with previously held beliefs, and (d) dealing with challenges of living in a new country (Benza & Liamputtong, 2014).

Thirteen of the studies evaluated revealed the need to follow traditional beliefs and practices, specifically including cultural views on antenatal rest and confinement (Benza & Liamputtong, 2014). Fourteen of the studies demonstrated that prior pregnancy and delivery experiences from their country of origin strongly determine their expectations in their new country (Benza & Liamputtong, 2014). Eleven studies revealed feelings of fear, anxiety, or mistrust when utilizing the new country's healthcare system. In contrast, the same number of

studies showed concern about the prenatal care practices in their adopted homelands (Benza & Liamputtong, 2014). As with other studies discussed in this literature review, language and communication remain of vital importance when accessing healthcare and the need for social support (Benza & Liamputtong, 2014). A majority of women included in the studies reviewed in the meta-synthesis reported a desire for social and emotional support from their healthcare provider and an improved patient-provider relationship (Benza & Liamputtong, 2014).

Health Care Among Bhutanese Refugees

While multiple studies aimed to evaluate healthcare perceptions among refugees and immigrants, there is little available data related explicitly to the Bhutanese refugee population within the United States. One study that was identified (Yun et al., 2015) sought to study help-seeking behaviors and barriers to healthcare among Bhutanese refugees. This study received a LEGEND score of 4b, a lesser quality mixed methods study (Clark et al., 2009). A convenience sample of Nepali-speaking Bhutanese refugees (N=35) was interviewed at a familiar community location known among the Bhutanese population (Yun et al., 2015). The study used a mixed-method design with both longitudinal and descriptive phenomenological components to measure a healthcare training session's effect on help-seeking behaviors (Yun et al., 2015). Topics covered in the social-modeling intervention included making appointments via telephone, use of public transportation, insurance resources, use of interpretive services, etc. (Yun et al., 2015). The participants were given a pre-and post-interview to determine how their healthcare perceptions changed after the intervention (Yun et al., 2015). Before the intervention, 31.3% of participants reported avoidance of calling the provider due to a language barrier, and 25.8% missing appointments for this reason. After the intervention, only 2.9% of respondents avoided calls to the provider, and only 8.8% missed an appointment due to a language barrier (Yun et al.,

2015). The study's results demonstrated an increase in help-seeking behaviors after the intervention and reinforced the importance of learning basic life skills on access to healthcare (Yun et al., 2015). Limitations of the Yun et al. study include a small sample size and limited diversity among participants (2015).

Prenatal Care Measurement Tools

While the adequacy of prenatal care has been previously defined and accepted by professional organizations like the AAP and ACOG, there is little consensus on how to operationalize the content or quality of care (Heaman et al., 2014). Multiple attempts have been made to evaluate the quality of prenatal care. One such tool, the Content and Timing of Care in Pregnancy (CTP), was developed using national and international practice guidelines to measure the timing and content of prenatal care (blood pressure readings, ultrasounds, etc.) (Beeckman et al., 2011). The tool was used to classify a women's prenatal care experience as inadequate, intermediate, sufficient, or appropriate. Still, it didn't account for measures of quality that ask a woman for her perceptions of the care she received (Beeckman et al., 2011). The score on the tool was based solely on whether the woman had received care and screening at the recommended timeframes during pregnancy (Beeckman et al., 2011).

Another developed tool that did incorporate patient perceptions was the 30-item Prenatal Interpersonal Processes of Care (PIPC) (Wong et al., 2004). This tool utilized three dimensions of patient care: communication, patient-centered decision-making, and interpersonal style (Wong et al., 2004). While this tool did evaluate aspects of the patient-provider relationship in determining the quality of prenatal care, it did not include the multi-dimensional components of quality that have now been identified (Wong et al., 2004).

Heaman et al. (2014) sought to develop a tool that would take a comprehensive approach to measure the quality of prenatal care. The goal was to create an instrument that accounted for pregnant women's experiences and perspectives in measuring the quality of prenatal care. Donabedian's Model of Quality Health Care (1988) was used as a guide in formulating the tool, incorporating the elements of structure, process, and outcomes (Heaman et al., 2014). The study used a psychometric design performed in five phases and received a LEGEND score of 2a, good quality psychometric study (Clark et al., 2009). The Quality of Prenatal Care Questionnaire (QPCQ) was developed and tested to assess and compare the quality of care across different regions and populations (Sword et al., 2015; Heaman et al., 2014). All of the studies involving the QPCQ in this literature review focus on the development or validation of the QPCQ. No studies were found that used the tool exclusively for measuring the quality of prenatal care.

The QPCQ was initially developed in Canada using guidelines from international professional organizations, with items being developed through interviews with 40 pregnant women and 40 women's healthcare providers. Interpersonal relationships between patient and provider were identified as a priority among both groups (Heaman et al., 2014). The 46-item finalized tool was administered to another group of 422 women to establish its construct validity, internal consistency (Cronbach's alpha = 0.96), and test-retest reliability (Intraclass Correlation = 0.88) (Heaman et al., 2014). Important themes covered in the self-administered tool include information sharing, anticipatory guidance, sufficient time, accessibility, availability, and support/respect. The study was limited to Canadian women with access to universal healthcare, which was identified as a potential study limitation (Heaman et al., 2014).

The Quality of Prenatal Care Questionnaire (QPCQ) was translated into French and validated in a French-speaking Canadian population in 2015 by Sword et.al. The study used a

psychometric design and received a LEGEND score of 2a, good quality psychometric study (Burkett & Stanko-Lopp, 2009). There were 302 women who participated in the study, with inclusion criteria that included reading and writing in French (Sword et al., 2015). The study occurred in a birthing center located in a teaching hospital in Ottawa, Canada, that serves patients from Eastern Ontario and Western Quebec (Sword et al., 2015). The French-language version of the QPCQ was a valid and reliable instrument with a Pearson r of 0.85 and a Cronbach's alpha of 0.97, which were similar to the results found in the English language testing of the tool (Sword et al., 2015). One limitation cited by study authors was that participants came from high-income and high-education backgrounds, limiting the study sample's diversity (Sword et al., 2015).

The Quality of Prenatal Care Questionnaire (QPCQ) was also translated and tested in a Brazilian-Portuguese version in 2017 (Dias Nunes et al., 2017). This study utilized a psychometric design and received a LEGEND score of 2a, good quality psychometric study (Clark et al., 2009). The researchers followed the protocol outlined by the International Society for Pharmacoeconomics and Outcomes Research in translating the English version of the QPCQ into Brazilian-Portuguese. Prior to the study by Dias Nunes et al., the QPCQ had previously been translated and validated for use in several other countries, including Australia, France, Myanmar, and Portugal (Dias Nunes et al., 2017). The tool has more recently been translated into multiple other languages, including Chinese, Nepali, Persian, Tagalog, Turkish, and Yoruba (McMaster University, 2021).

Two hundred ninety-five women participated in the psychometric study of the translated QPCQ into Brazilian-Portuguese. All of the women were Brazilian, and their native language was Portuguese (Dias Nunes et al., 2017). The study occurred in a large maternity hospital as

part of the public health system, which allowed for a very diverse population of participants (Dias Nunes et al., 2017). After data analysis, the Brazilian-Portuguese version of the QPCQ was a reliable and valid questionnaire to measure the quality of prenatal care among Brazilian women. The Cronbach's alpha was calculated to be 0.975, and the intraclass correlation coefficient (ICC) was 0.995 (95% CI 0.993-0.996) (Dias Nunes, 2017).

Rationale for Project

The literature review and synthesis revealed some common themes among perceptions of quality prenatal care. The importance of the provider-patient relationship and improved communication were frequently identified as components of quality prenatal care. While multiple qualitative studies have confirmed these patient priorities, there has been a lack of research to quantify these results.

As the Bhutanese-Nepali population continues to grow within the United States, adequate research is essential to ensure that this group of refugees receives high-quality prenatal care to promote the best possible outcomes. After a careful and thorough search of the available literature, it is clear that there is a lack of research on this population within the United States. Using the QPCQ as a tool, the Bhutanese-Nepali population can be studied to determine their perceptions of the quality of prenatal care since arriving in the United States. This knowledge will help providers better adapt prenatal care to meet the unique needs of this growing population.

Chapter III

Methods

This chapter outlines the project implementation, including the project design, sample, and quantitative tool used to measure the quality of prenatal care among the study participants. The data collection methods and data analysis are reviewed. The process of consent and ensuring the protection of human subjects is described.

Design

The DNP scholarly project used a descriptive, cross-sectional, mixed-methods survey design to evaluate the perceived quality of prenatal care among resettled Bhutanese-Nepali refugees. Studies with a descriptive design evaluate individuals' or groups' characteristics to find commonalities (Polit & Beck, 2014). Cross-sectional designs include studies that collect data to identify a phenomenon at one moment in time (Polit & Beck, 2014). The mixed-methods survey incorporated a validated tool with established psychometric properties, a demographic data questionnaire, and two open-ended qualitative questions.

Primary and Secondary Aims

The project's primary aim was to evaluate the quality of prenatal care as perceived by resettled Bhutanese-Nepali refugees. The secondary was to explore the relationships between multiple demographic variables and the perceived quality of prenatal care.

Population and Setting

The study population included resettled Bhutanese-Nepali women, all of whom were postpartum and within six weeks of delivery. The project setting was a teaching hospital in Central Ohio with a large population of resettled Bhutanese-Nepali refugees. The written survey was administered to consenting participants on the Mother-Infant Unit (MIU) before discharge or

in the hospital OB/GYN Clinic during their postpartum follow-up visit. The PI obtained consent with the assistance of a professional Nepali interpreter via telephone (when appropriate).

Study inclusion criteria included: (a) ≥ 18 years of age; (b) resettled Bhutanese-Nepali refugee; (c) delivery of full-term (37-42 weeks), singleton, live newborn within past six weeks; (d) able to read and write in Nepali or English; and (e) attended at least three prenatal care appointments at the hospital OB/GYN Clinic. Exclusion criteria included (a) patients whose newborn has currently been admitted to the Neonatal Intensive Care Unit (NICU) and (b) patients who decline to participate in the survey.

Measurement Tools

The Quality of Prenatal Care Questionnaire (QPCQ) was developed and tested in 2013 using U.S. and Canadian prenatal care guidelines, after growing evidence of the importance of patient perceptions in evaluating the quality of health care (Sword et al., 2012; Heaman et al., 2014; Wong et al., 2004). The tool utilizes Donabedian's Model of Quality Health Care in establishing the components of quality prenatal care (1988).

The QPCQ was developed through interviews with 40 pregnant women and 40 women's healthcare providers in five Canadian cities. The final 46-item tool was then administered to 422 additional postpartum women to establish the tool's construct validity, internal consistency, and test-retest reliability (Heaman et al., 2014). The QPCQ demonstrated acceptable internal consistency reliability with a Cronbach's alpha of 0.96 and stable test-retest reliability with an Intra-class correlation coefficient of 0.88 (Heaman et al., 2014). Temporal stability testing demonstrated no significant change in patient responses between delivery and 4 to 6 weeks postpartum (Heaman et al., 2014).

The QPCQ has since been translated into multiple languages, including French, Brazilian-Portuguese, Chinese, and Nepali (Dias Nunes et al., 2017). Written permission to utilize the Nepali and English-Language versions of the tool was obtained by the PI via email from the tool developer (see Appendix A). The Nepali-language QPCQ was received directly from the tool developer.

The 46-item tool utilizes a self-report 5-point Likert Scale. Response options range from (1) "*Strongly Disagree*" to (5) "*Strongly Agree*." Several response options are "reversed" to reduce the risk of responder bias. There are six subscales of the QPCQ: Information Sharing, Anticipatory Guidance, Sufficient Time, Approachability, Availability, and Support and Respect (Heaman et al., 2014). Several of the response options are "reversed" to reduce the risk of responder bias. A scoring tool is included by the developer, with mean scores being calculated in each of the subscales. Scores for both the full scale and subscales are not summated but instead are computed using a mean. The higher the mean score, the higher the perceived quality of prenatal care (Heaman et al., 2014).

Information Sharing

The QPCQ evaluates information sharing with a series of questions that ask participants about how their care providers communicated. The subscale seeks to identify whether or not providers are adequately answering patient questions, explaining the purpose and results of tests and procedures, and allowing them to make informed decisions for themselves. The nine items from this section of the tool are scored to obtain a mean rating. Scores for this subscale range from 9-45 (Sword et al., 2014).

Anticipatory Guidance

This subscale contains 11 items that evaluate the patients' perceptions of anticipatory guidance include items that ask about preparation for their birth experience, breastfeeding, and

nutrition. Other questions ask if the patient felt that they were informed about depression, alcohol use, and exercise safety. The tool also asks if participants feel they had the opportunity to discuss issues specifically important to them (Sword et al., 2014).

Sufficient Time

The five questions asking participants about sufficient time during their prenatal appointments address whether patients felt rushed by their providers. This portion of the QPCQ asks whether patients perceive that their providers took time to talk, listen, and answer any questions that they had. The scores are totaled and a mean obtained, with one of the questions being reverse scored (i.e., 1=5 through 5=1) (Sword et al., 2014).

Approachability

The QPCQ evaluates approachability through four questions that ask whether patients felt rushed during their appointments, were afraid to ask questions, felt like a waste of the provider's time, or felt that the provider was abrupt. All four items on the approachability subscale are reverse scored (i.e., 1=5 through 5=1) (Sword et al., 2014).

Availability

The QPCQ includes five questions related to the perception of the provider's availability, including how easily they could reach the clinic and the speed at which phone calls were returned (Sword et al., 2014).

Support and Respect

There are 12 items included in the QPCQ to evaluate perceived support and respect by prenatal care providers. These questions aim to identify whether patients felt that they were respected and supported throughout their care. Other questions ask if they felt that their provider

was patient with them and supported decisions they made about their own care (Sword et al., 2014).

Open-Ended Questions

Two optional open-ended questions were included with the QPCQ as a separate document. These questions focused on the respondent's experiences with prenatal care not otherwise reviewed in the QPCQ, as well as suggestions for how their prenatal care might have been improved.

Demographic Questionnaire

Demographic data included age, marital status, number of years in the United States, and number of total deliveries in both the U.S. and Nepal (see Appendices B and C). Prior studies have demonstrated a relationship between immigrant acculturation and satisfaction with prenatal care, so this information will help determine whether this is a factor among this study's population (Fuentes-Afflick et al., 2014).

Data Collection Procedures and Timeline

Data were collected during the summer and fall of 2020 and winter of 2021. Participants were recruited by Registered Nurses (RN) or APRNs on the Mother-Infant Unit (MIU) of the study hospital, who identified potential subjects and asked if they would be interested in participating in the project. If the subject was interested, the RN or APRN notified the PI of her interest. The RNs and APRNs had no further role as part of the project team. Patients who met the criteria were asked, via Nepali interpreter, if they were interested in participating in a confidential, voluntary study about their prenatal care experiences. The PI had access to the patient's hospital record to ensure that all inclusion/exclusion criteria had been met.

After the PI reviewed study details, participants were given a written copy of the QPCQ tool, demographic questionnaire, and supplemental qualitative open-ended questions form, in

either Nepali or English, per patient preference. A standard consent provided by the hospital system was added to the beginning of the survey. The form included information about the study, the purpose of the study, and the patient's right to decline participation at any point in the process. The consent form ended by indicating that completion of the survey implied consent. Consent language, the demographic tool, and qualitative questions were translated into Nepali and back-translated into English, using the guidelines set forth by the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) (Wild et al., 2005).

The project was performed using a confidential pencil/paper survey that was given directly to study participants for completion. Once the surveys were completed, the data were transferred to a spreadsheet document on a password-protected computer owned by the PI. The survey hard copies have been stored together in a secure location in the PI's office and will be maintained for three years. Only the PI, faculty advisor, and a study statistician have access to the collected data.

Data Analysis

The Quality of Prenatal Care Questionnaire was scored by adding the scores for all items (using the reverse scores when directed to do so). The total sum was then divided by 46, the number of items on the tool, to achieve the total mean score. The mean score is a number from one to five, with the higher the number indicating the higher quality of prenatal care. Each of the individual subscales was scored to gain a more focused assessment of strengths and weaknesses within the prenatal care process (Heaman et al., 2014).

The demographic data from the survey tools were analyzed using descriptive statistics to identify measures of central tendency and standard deviation. An independent-samples *t*-test was utilized to compare the mean scores of the QPCQ subscales among two demographic

groups. The relationship between several of the demographic variables and the QPCQ was evaluated by using a correlation analysis.

Human Subject Review

The study was conducted utilizing the protocol for research on human subjects outlined by the Georgetown University Institutional Review Board (IRB) and the project site IRB. Approval was obtained by the IRB of both organizations.

Conclusion

This chapter discussed the study design and outlined the study procedures, including consent and management of obtained data. The study tool was reviewed, and each subscale was outlined individually, along with an explanation of demographic data that was collected. Tool scoring procedures and subsequent data analysis were described. Requirements for protecting human research subjects were addressed in preparation for approval from the Georgetown University IRB and Project site IRB.

Chapter IV

Analysis

Once data collection ended, the results were calculated and analyzed. Quantitative study data were analyzed using the Statistical Package for the Social Sciences (SPSS v. 26), assisted by the university statistician. This chapter presents the descriptive statistics used to identify the study population's demographic characteristics and the QPCQ survey results. Results are presented about the relationships between the demographic variables and survey results. Qualitative data are shared as they relate to the qualitative data collected in the study.

Characteristics of Participants

Surveys were collected from resettled Bhutanese-Nepali refugee women who were postpartum and within six weeks of delivery. Participants were recruited for the study on the hospital Mother-Infant Unit (MIU) and in the hospital O.B. Clinic during the routine postpartum office visit. Study inclusion and exclusion criteria were carefully followed. A final sample size of 49 participants was obtained for the study. All of the women who were approached and met the inclusion criteria completed the study. A priori power analysis using G*Power was performed before the start of data collection. A minimum sample size of 68 was needed to achieve a power of .80 with a medium effect size ($f^2 = 0.15$) (Schaeffer et al., 2012). In order to reduce the risk of a Type I error, the alpha level was set at .05. A Type I error is made when a true null hypothesis is rejected (Polit & Beck, 2014).

The mean age of the 49 study participants was 28.7 years ($SD = 6.12$), with a range of 18 to 43 years (see Table 1). Additionally, 46 of the 49 (93.9%) participants reported that they were married. The number of years living in the United States ranged from three to ten, with a mean of 6.35 years ($SD = 2.18$). When examining the total number of children, participants reported a

range from one to five children, with a mean of 2.49 ($SD = 1.14$). Participants were also asked for the country where their children were born, and nearly half (24 or 49%) reported having had children born in Nepal before they arrived in the United States. This information could provide insight into whether past prenatal care experiences could affect their current perceptions.

Table 1. Participant Demographics (N = 49)

| | <i>n</i> | % |
|-----------------------------------|----------|-------|
| Age (years) | | |
| 18-23 | 10 | 20.4% |
| 24-29 | 20 | 40.8% |
| 30-35 | 10 | 20.4% |
| 36-41 | 7 | 14.3% |
| 42+ | 2 | 4.1% |
| Marital Status | | |
| Married | 46 | 93.9% |
| Single/Divorced | 2 | 4.1% |
| Widowed | 1 | 2.0% |
| Years Living in the US | | |
| 3-4 | 14 | 28.6% |
| 5-6 | 11 | 22.4% |
| 7-8 | 13 | 26.5% |
| 9-10 | 11 | 22.4% |
| Number of Children Born in Nepal | | |
| 0 | 25 | 51.0% |
| 1 | 16 | 32.7% |
| 2 | 7 | 14.3% |
| 3 | 1 | 2.0% |
| Number of Children Born in the US | | |
| 1 | 18 | 36.7% |
| 2 | 21 | 42.9% |
| 3 | 10 | 20.4% |

Project Aims

Perceptions of Prenatal Care

The study's primary aim was to evaluate prenatal care perceptions among resettled Bhutanese-Nepali refugees utilizing the QPCQ and open-ended qualitative questions. When assessing the survey results from the total sample of 49 participants, the mean score obtained on the complete QPCQ was 4.17 ($SD = 0.28$). The 46 items on the full QPCQ are Likert-style

questions with answer options from 1 (*strongly disagree*) to 5 (*strongly agree*). Five items on the tool were reverse-scored and are expressed accordingly in the results. The higher the score indicates a greater level of perceived quality of prenatal care received. The 46-item QPCQ is divided into six subscales: Information-Sharing (nine items), Anticipatory Guidance (11 items), Sufficient Time (5 items), Approachability (4 items), Availability (5 items), and Support and Respect (12 items). The Information-Sharing subscale received the highest mean score among the 49 participants with a 4.30 ($SD = 0.33$), while the Approachability subscale received the lowest mean score of 4.09 ($SD = 0.72$). The Anticipatory Guidance subscale also received a lower mean score of 4.11 ($SD = 0.46$) (See Table 2).

Table 2. QPCQ Subscale Results (N=49)

| Subscale | Mean | <i>SD</i> | Min. | Max. |
|-----------------------|------|-----------|------|------|
| Information Sharing | 4.30 | 0.33 | 3.67 | 5.00 |
| Anticipatory Guidance | 4.11 | 0.46 | 2.91 | 4.82 |
| Sufficient Time | 4.20 | 0.43 | 3.60 | 5.00 |
| Approachability | 4.09 | 0.72 | 1.50 | 5.00 |
| Availability | 4.20 | 0.46 | 3.40 | 5.00 |
| Support and Respect | 4.14 | 0.49 | 3.08 | 4.83 |
| Full QPCQ* | 4.17 | 0.28 | 3.37 | 4.70 |

*Mean of all 46-items of the QPCQ

After examining the results from the QPCQ and its six subscales, individual tool items were assessed for high and low scores, aimed at identifying specific areas of strength or needed improvement. An item from the Sufficient Time subscale that asked respondents whether their care provider had time to answer their questions received the highest item score on the QPCQ, with a mean of 4.59 ($SD = 0.50$). Other items that received higher mean scores were questions

that asked if participants had always received honest answers to their questions ($M = 4.57$, $S.D. = .50$) and if they had received enough information about prenatal tests and procedures ($M = 4.53$, $SD = 0.58$). The lowest scored item, from the Sufficient Time subscale, asked participants whether their provider was rushed during their visits (Reverse scored, $M = 3.20$, $SD = 1.22$). Other lower scored items include whether they perceived that their providers cared how the pregnancy was affecting them ($M = 3.38$, $SD = 1.02$) and if their provider had been abrupt with them (Reverse scored, $M = 3.53$, $SD = 1.08$) (See Table 3). As with the other items in the tool, these lower scored items indicate the less perceived quality of prenatal care.

Table 3. QPCQ Individual Item Scoring, Highest and Lowest Scores (N=49)

| Item | Mean | SD | Min. | Max. |
|--|-------|------|------|------|
| Item 18: "My prenatal care provider always had time to answer my questions." | 4.59 | 0.50 | 4 | 5 |
| Item 6: "I was always given honest answers to my questions." | 4.57 | 0.50 | 4 | 5 |
| Item 3: "I was given adequate information about prenatal tests and procedures." | 4.53 | 0.58 | 4 | 5 |
| Item 8: "My prenatal care provider was rushed." | 3.20R | 1.22 | 1 | 5 |
| Item 24: "My prenatal care provider was interested in how my pregnancy was affecting my life." | 3.38 | 1.02 | 1 | 5 |
| Item 15: "My prenatal care provider was abrupt with me." | 3.53R | 1.08 | 1 | 5 |

R=Reverse Scored Item (final score, after reversal, is listed in the table)

Qualitative Data: Open-Ended Responses

Following the 46-item QPCQ tool and separate demographic questionnaire were two open-ended questions seeking further information about the respondents' prenatal care experiences. Five of the 49 survey participants (10%) completed the open-ended questions: (a) what else about your prenatal care experience would you like to share, and (b) what would have made your prenatal care experience better? The majority of the comments expressed gratitude and a positive response to the care that was received: One respondent wrote, "I am good, and they are very kind and helpful to me. Thank you very much." Another respondent had a similar comment, writing: "Everything is good. I am very happy with the health workers." Yet another participant had a more specific comment: "I was really worried about the whole thing and was worried there may be adverse consequences to my health since I was also in a lot of pain. But the nurses always cared for me." The same participant offered this suggestion for an improvement in her care: "I would have loved if I had company at all times. Also, getting regular updates would have improved the experience." This statement referred to the change in policy due to COVID-19, where patients were required to attend their visits alone. The written comments expressed an overall positive perception of the prenatal care received.

Relationship Between Select Demographic Variables and Perceptions of Prenatal Care

The study's secondary aim was to identify relationships between the various demographic variables and the perceived quality of prenatal care. An independent-samples *t*-test was utilized to compare the mean scores of the QPCQ subscales among two demographic groups: those who had given birth in Nepal before they arrive in the U.S. and those who had no deliveries prior to arrival in the U.S. An independent samples *t*-test measures the significance of the difference in the means among two groups on an interval level outcome variable (Polit & Beck, 2014).

An independent samples *t*-test was first conducted to compare the mean scores of the QPCQ subscales and the two demographic groups identified above. There were no significant differences in mean scores among the six subscales based on whether the participant had children in Nepal or only in the U.S. Although not statistically significant, Subscale 4 (Approachability) demonstrated a difference in means among the two groups that is noteworthy. Participants who had a baby in Nepal ($M = 4.26, SD = 0.82$) rated approachability of their provider higher than those who had not had a baby prior to arrival in the U.S. ($M = 3.92, SD = 0.58, t(47) = -1.69, p = 0.098$) and a medium effect size (Cohen's $d = 0.48$) (mean difference = 0.340), 95% CI [-.746, .065].

Another independent samples *t*-test was conducted to compare the mean scores between the 46 individual items of the QPCQ and the two aforementioned demographic groups. The only item that showed a statistically significant difference in the means among the two groups was item 15, "My prenatal care provider(s) was abrupt with me." This item, which was reverse-scored, demonstrated that women who had given birth in Nepal before they arrived in the U.S. ($M = 3.88, SD = 1.04$) felt that their providers were less abrupt than women who had no births prior to arrival in the U.S. ($M = 3.20, SD = 1.04$). The difference in the means was $-.675$, 95% CI [-1.27, -.078] ($t(47) = 2.28, p = .03$) and a medium effect size (Cohen's $d = 0.65$). The other 45 items from the QPCQ failed to demonstrate a statistically significant difference among the means of the two demographic groups measured.

The relationship between several other demographic variables (age, years in the U.S., number of children in the U.S., total number of living children) and scores on the QPCQ was evaluated using correlation analysis. A correlation identifies the strength and linear direction of the relationship between variables (Pallant, 2016). Pearson's *r* was chosen for the correlation

analysis because it can be used with the interval and ratio level variables obtained in the demographic survey and the interval level data from the QPCQ (Moran et al., 2017).

There was no relationship found between QPCQ total or subscale scores and age (p -values ranged from 0.09 to 0.84). There was a small not statistically significant positive correlation between approachability and age ($r = 0.24, p = 0.09$)—as age increases, scores on approachability also increase. No relationship was found between QPCQ total or subscale scores and the number of years in the U.S. (p -values ranged from 0.17 to 0.95). When looking at the relationship between QPCQ scores and the number of children born in the U.S., there was a small positive correlation between the scores on the Approachability subscale and the number of children born in the U.S. ($r = 0.25, p = 0.08$) ---as the number of children born in the U.S. increases, the scores on the Approachability subscale increase. No other relationships were found between QPCQ scores and the number of children born in the U.S. (p -values ranged from 0.08 to 0.82). When looking at the relationship between the QPCQ scores and the total number of living children (regardless of country of birth), there was a small positive correlation between scores on the Anticipatory Guidance subscale and the total number of living children ($r = 0.25, p = 0.09$). No other relationships were found when comparing the number of living children to scores on the QPCQ (p -values ranged from 0.09 to 0.88).

Conclusion

This chapter described the results of the study and evaluated the relationships among the variables studied. The demographic survey was reviewed to describe the population sample that participated in the study. When evaluating the total and subscale scores of the QPCQ, a statistically significant difference was noted on whether the respondents felt that their care providers had been "abrupt," with women who had given birth before arrival in the U.S. giving

higher marks on this metric than women with no delivery prior to their arrival in the U.S. Data analysis involving demographic variables and QPCQ scores showed some small positive correlations, though none reached the level of statistical significance.

Chapter V

Discussion and Conclusions

Once data analysis has been completed, the information should be carefully evaluated for how it can be utilized to improve future practice and patient outcomes (Moran et al., 2017). This chapter discusses the findings of the study, including strengths and limitations, and offers suggestions for future research and improvements in clinical practice.

Project Aims

The study's primary aim was to explore the perceptions of resettled Bhutanese-Nepali refugee women on their recent prenatal care experiences in the United States. The majority of the literature reviewed focused on the quality of prenatal care as a measure of the quantity of care, its use of evidence-based practice guidelines, and perinatal outcomes (Kotelchuck, 1994; Sword et al., 2012; Tillett, 2009). While these are all vital components of prenatal care, a more recent approach has begun to include the patient's perspective when evaluating quality prenatal care (Sword et al., 2012). Specifically, Sword et al. developed and tested a psychometric tool to measure prenatal care quality from the woman's perspective (2012). It has been well-established that early and adequate prenatal care positively affects pregnancy outcomes and future use of the healthcare system (Gadson et al., 2017; Ronsaville & Hakim, 2000). Identifying a woman's values as a quality prenatal care experience is an essential step in ensuring early access to care (Sword et al., 2012). This study aimed to identify prenatal care perceptions among resettled Bhutanese-Nepali refugee women, a growing minority group in the U.S., with minimal available research on healthcare access and behaviors.

Quality of Prenatal Care Questionnaire (QPCQ) items are Likert-style, from 1 (*strongly disagree*) to 5 (*strongly agree*). The higher the score on the tool, the higher the perceived quality

of prenatal care that the respondent had received. The overall QPCQ scores were high, with a mean score of 4.17 out of 5.0 among the 49 participants. This indicates that the survey participants had a positive experience and felt that they had received quality prenatal care.

When evaluating the scores on the six subscales, each of the subscales received a mean score above 4.0, with Information Sharing (Factor One) earning the highest score. This subscale consisted of nine items dealing with how well care providers informed them about prenatal tests, their perceived honesty during patient-provider interactions, and how information was managed and conveyed. The concept of shared decision-making is at the core of this subscale and was identified previously as a priority for women during their prenatal care experiences (Sword et al., 2012; Fuentes-Afflick et al., 2014). When specifically asked whether their provider gave them enough information to make their own decisions, participants responded with a mean score of 4.45, $SD = 0.64$, indicating agreement that they were offered adequate shared decision-making with their providers. One explanation for this score could be the nurse's traditional role in developing a helping-trusting patient relationship and promoting teaching-learning (Watson, 2008), both critical foundations for shared decision-making. This relationship-building role is emphasized early in the nursing education process and becomes an innate part of every nurse-patient interaction. The care providers at the OB/GYN Clinic where the study was conducted are predominantly Advanced Practice Registered Nurses (APRN), so most of the respondents spent most (or all) of their prenatal care with nurses. The importance of shared decision-making and building a strong patient-provider relationship was a theme expressed throughout the literature as one of the most important aspects of quality prenatal care (Fuentes-Afflick et al., 2014; Sword et al., 2012; Worabo et al., 2016).

It is perhaps not surprising that two of the three highest scored individual items from the tool came from the Information Sharing subscale. The other highly scored item asked participants if their provider always had time to answer their questions, strengthening the perception that the APRN providers at the clinic are meeting their patients' needs when it comes to providing adequate education and information sharing.

The lowest mean score among the six subscales was Factor Four, Approachability. This subscale consists of four questions directly related to whether they felt rushed during their visits or if their provider was abrupt with them. With decreasing patient appointment times, providers often feel the rush to get between patients and stay on schedule. This feeling of being in a hurry may inadvertently come across to patients. Also, a recent change in hospital structure has eliminated the hospital-based interpretive services translators that were quickly available to assist with patient-provider communication. An outside commercial translator service is now being utilized, often leading to long wait times for a phone-based interpreter to become available. The majority of the study participants speak Nepali and routinely require interpretive services, taking valuable time away from the direct patient-provider interaction. Having to wait for an interpreter, which feels like a loss of valuable time, may make the provider seem more rushed or abrupt.

The lowest scored individual items on the QPCQ relate directly to the idea of feeling rushed. The second-lowest scored item of the tool came when asked if their prenatal care provider was interested in how their pregnancy was affecting them. This likely refers back to feeling rushed or that their provider was abrupt when they start the prenatal visit with routine questions about the pregnancy. Asking about fetal movement and contractions may seem like the provider's main priority, but the patient may feel like they are only valued for their pregnancy

and not a holistic woman. The notion of woman-centered care refers to prioritizing the patient's psychosocial construct as being of equal importance to the physical aspects of pregnancy (Fontein-Kuipers et al., 2018). Woman-centered care is typically emphasized in practice by midwives and nurse practitioners (Fontein-Kuipers et al., 2018), but when rushed through prenatal visits, the provider may feel forced to prioritize the interaction.

Demographic Variables

The secondary aim of the study was to identify relationships between the various demographic variables and the perceived quality of prenatal care. The Approachability subscale (Factor Four), discussed previously as having earned the lowest total QPCQ subscale score, demonstrated a non-statistically significant difference depending upon the location of the participants' first delivery. Women who had delivered in Nepal before they arrived in the U.S. had higher subscale scores than women who had not had a baby prior to arrival in the U.S. This could be explained by their prenatal care experiences in Nepal and a difference in the healthcare delivery system between the two countries. The resettled Bhutanese-Nepali refugee women sampled for this study have spent all or most of their lives living in refugee camps before their arrival in the U.S. (Community Research Partners, 2017), making a direct comparison difficult.

The Approachability subscale also earned higher scores among women who were older and women who had more children born in the U.S. ---the more children born in the U.S., the higher the score on the Approachability subscale. Although not statistically significant, these score differences could be explained clinically by increasing acculturation--as women with more children born in the U.S. have more experience navigating the complexities of the healthcare system.

Strengths

The women surveyed for the DNP scholarly project predominantly live in one part of town and seek their prenatal care and delivery at the hospital where the project was implemented. The PI, an employee of the hospital system, practices as an APRN in the OB/GYN Clinic and had the clinic and hospital leadership's full support in conducting the survey. Additionally, the PI had access to nursing staff in both the clinic and Mother-Infant Unit, making study recruitment a more straightforward process. The nursing staff was eager to assist the PI, as they were very familiar with the study and the inclusion/exclusion criteria, so they were helpful in identifying eligible participants. Accessing the EMR to confirm inclusion/exclusion criteria of survey participants was possible due to the PI's hospital employment. Access to the EMR was approved through the study site's IRB process. This allowed for timely identification of appropriate study subjects.

The majority of the participants in the study had limited English proficiency (LEP). The availability of a Nepali-language version of the study tool and access via phone to professional Nepali-language interpreters were also considerable strengths of the study.

Limitations

The study's original target sample size, identified by a priori power analysis, was 68 participants. A final sample size of 49, 72% of the goal, was achieved, which was a limitation of the project. A larger sample size, ensuring a more robust sample of the population, would have strengthened the results.

The most significant limitation of the project was the onset of the COVID-19 global pandemic, which forced substantial changes in the hospital delivery system before the start of study recruitment. These changes affected pregnancy and prenatal care practices across the

United States (Burgess et al., 2020). The initial onset of recruitment was delayed by several months as all non-essential human subject research at the project site was temporarily paused. Once recruitment began, several new hospital policies were in place that significantly impacted the prenatal care process.

One of the most significant changes in hospital policy involved visitor access. Women were no longer able to attend prenatal appointments or ultrasounds with a support person. This substantially impacted women's prenatal care experience, often making care feel more isolating than inclusive and patient-centered. Participants who completed data collection early in the recruitment process had experienced prenatal care both before and after the COVID-19 changes were implemented. Those women who completed data collection toward the end of the recruitment period only received care after the new protocols were implemented. This could have impacted the data from early to late in the recruitment process. Dividing the participants into pre-and post- COVID restrictions could have added another variable that would have added meaningful information.

Another change that had a potential impact on the final sample size was hospital length of stay. Traditionally, women stay in the hospital for 48 or 72 hours postpartum, depending on whether they had a vaginal or cesarean delivery. Due to concerns about the risk of COVID exposure and limited hospital visitation (only one visitor allowed for the entire hospital stay), many women chose to request discharge 24 hours postpartum (J. Devine, personal communication, July 10, 2020). This limited the time that the patient was available for survey completion, thus limiting the sample size.

The QPCQ, along with the consent form, demographic data form, and open-ended qualitative questions, was available to survey participants in either Nepali or English. During the

consent process with a professional Nepali interpreter, subjects were asked which language was preferred for completing the written survey document. One unexpected limitation to the sample size involved women who spoke Nepali or English but could not read a paper in either language. Some women read a language other than Nepali (e.g., Hindi or Maithili), and others could not read any written language. With limited English proficiency, the language barrier added another challenge to the completion of the survey, highlighting the importance of adequate availability of interpretive services (Fellmeth et al., 2017; Pimental & Eckardt, 2014).

Another noted limitation of the study was the lack of qualitative data. The survey tool was 46-items, which may have been the reason that most participants did not complete the open-ended questions on the last page. Completion of the entire QPCQ was a considerable time commitment, taking women approximately 45 minutes to complete. The women read each question carefully and spent time before thoughtfully choosing an answer. Reaching the final question of the 46-item tool was a defined endpoint, and many of the women did not seem motivated to continue beyond that.

One cultural factor that may have served as a study limitation could have been related to participants not wanting to upset or offend their care providers. Study participants may have answered questions more positively due to social desirability response bias to please their health care team.

One other COVID-related limitation was the sudden routine use of face masks in the clinical setting. This has affected patient-provider communication, especially when there is a language barrier. Speaking through an interpreter and being unable to communicate with common facial expressions have removed an essential communication tool. The importance of a

smile during routine or complex medical discussions cannot be overstated and likely affects how a woman views the care she has received.

Implications for Practice

The development of a solid patient-provider relationship and effective communication have been established as priorities for women, particularly immigrant women, during their prenatal care experiences (Fuentes-Afflick et al., 2014; Owens et al., 2015; Sword et al., 2012; Wheatley et al., 2008). Underserved minority women are at the highest risk for adverse pregnancy outcomes in the United States due to ongoing healthcare delivery system disparities (Wheatley et al., 2008). Prioritizing the needs of these high-risk women to encourage access to early and high-quality prenatal care is vital in the efforts to improve pregnancy outcomes.

Determining what women value as quality care is the first step in this process.

The patient-centered goal of those providing prenatal care to the resettled Bhutanese-Nepali population must be focused on building a solid patient-provider relationship. This relationship must include ongoing, effective communication and adequate education to encourage shared decision-making. Providers must also try to view the women as a whole person, asking questions about other concerns in their daily lives, including children, family, and the community they live in. This will develop trust and make the woman feel valued in a very vulnerable situation (Bender et al., 2001). Though often a challenge for busy healthcare providers facing a full daily schedule, the importance of slowing down and making a deliberate effort not to seem rushed or abrupt should be a patient-centered goal for prenatal care visits.

Further Study

Improving the quality of prenatal care for the vulnerable Bhutanese-Nepali refugee population should be a priority for their healthcare providers. Understanding that women value a

solid patient-provider relationship with effective communication is essential, but understanding exactly what that entails should be an ongoing question. A qualitative study where women are encouraged to express their thoughts on how providers should communicate, body language cues and other priorities would be a valuable tool to improve the quality of care provided. This would offer more specific ways that care delivery can be improved.

A continuation of this DNP scholarly project to obtain a larger sample size, with women from multiple prenatal care providers (including physicians and APRNs), would help understand women's prenatal care perceptions in other areas of the community.

Conclusions

The purpose of this DNP scholarly project was to evaluate the perceptions of prenatal care among resettled Bhutanese-Nepali refugees, a growing population in the United States. A literature review revealed the common theme that women, particularly immigrant women, place a strong emphasis on the patient-provider relationship as the foundation of quality prenatal care.

The women chosen for this project are cared for in a hospital-based OB/GYN clinic in a large teaching hospital in the Midwest. The midwives and nurse practitioners who care for these women seek to provide the best care possible, wanting them to feel valued and respected. The goal of a healthy mom and a healthy baby are at the core of every patient interaction. This project is the first step in understanding how to improve the care provided, recognizing that each woman is unique and has her own specific values.

Appendices

Appendix A: Permission Email

Sword, Wendy <sword@mcmaster.ca>
To: Jennifer Wolfe <jsw104@georgetown.edu>

Tue, Sep 10, 2019 at 4:05 PM

Hello Jennifer,

I have attached the original English QPCQ, the Nepali QPCQ, and scoring instructions for your use.

Best of luck with your research.

Kind regards,
Wendy

Appendix B: Demographic Form (English)

Demographic Survey Questions:

- 1.) What is your age? _____
- 2.) What is your marital status? _____
- 3.) How many years have you been living in the United States? _____
- 4.) How many deliveries have you had since arriving in the United States? _____
- 5.) How many deliveries did you have in Nepal? _____
- 6.) How many living children do you have? _____

Appendix C: Demographic Form (Nepali)

जनसंख्यिक सर्वेक्षण प्रश्नवली

- १) तप ईको उमेर कतत हो? _____
- २) तप ई तर्वर्व तहत, अतर्वर्व तहत, र्व तर्वर्धर्व /तर्वधुर हुनुहुन्छ ? _____
- ३) तप ई अमेररक म बसुभएको कतत बर्षपुगयो ? _____
- ४) अमेररक आइपुगेदेखि तप ईलेकततचोटी जन्म न्तरण गनुषभएको छ? _____
- ५) नेप लम तप ईलेकततचोटी जन्म न्तरण गनुषभएको तियो? _____
- ६) तप ईको कततजन ब ल बच्च हरु छन्? _____

Appendix D: Qualitative Questionnaire (English)

Qualitative Survey Questions:

- 1.) What else about your prenatal care experience would you like to share with me?

- 2.) What would have made your prenatal care experience better?

Appendix E: Qualitative Questionnaire (Nepali)

गुणात्मक सर्वेक्षण प्रश्नहरू:

१) तपाईंले प्रसर्वपूर्ववहेरचाह अथवा जन्मपूर्ववहेरचाहको अनुभवको बारेमा मलाई के सुनाउन चाहनुहुन्छ ?

२) कु न कु राहरुलेतपाईंको प्रसर्वपूर्ववअथवा जन्मपूर्ववहेरचाहको अनुभवलाई राम्रो बनाउँनेथथयो?

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