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A Qualitative Analysis of Migrant Women Farmworkers'

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This is to certify that the doctoral dissertation by

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2015

Abstract

A Qualitative Analysis of Migrant Women Farmworkers'

Perceptions of Maternal Care Management

by

Stacey A. Pilling

MA, Michigan Technological University, 2008

BS, Michigan Technological University, 2005

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

The purpose of this phenomenological study was to examine migrant women farmworkers' views of perinatal care management while working in the fields. Like men, women migrant farmworkers are exposed to many physical, chemical, and biological hazards that pose human health risks. However, women of childbearing age are at an increased risk of having reproductive health difficulties and adverse pregnancy outcomes, and the infant mortality rate among migrant farmworkers is estimated to be twice the national average. Perinatal care is a critical factor in reducing adverse outcomes for perinatal and newborn mortality. Face-to-face interviews were conducted with 15 migrant women farmworkers between the ages of 18 to 40 years who had experienced at least 1 gestational period during while working in the Midwest agricultural stream. Participants were voluntarily recruited from farms in Northern Ohio using purposeful sampling techniques. Guided by the social ecological model, data were analyzed via inductive coding techniques to tease out common themes. All participants reported a basic understanding of prenatal care but due to numerous occupational, community, and access barriers, could not participate in what they perceived as normal prenatal care. Also, participants stated when in gestation they were expected to perform the same jobs as women not in gestation. These findings may inform the work of public health providers and migrant healthcare clinicians of migrant women farmworkers' challenges while receiving perinatal care in Northern Ohio; results can also be used to influence local and national migrant healthcare policies on comprehensive maternal healthcare for migrant women farmworkers in Ohio and across the United States.

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Chapter 1: Introduction to the Study

Introduction

Migrant and seasonal farmworkers are a vital component of the multibillion dollar fruit and vegetable industry in the United States (National Center for Farmworkers Health (NCFH), 2012; U.S. Department of Agriculture, 2014), which relies on the ability of a temporary workforce to plant, maintain, and harvest crops for distribution (Anthony, Williams, & Avery, 2008). A seasonal farmworker is someone who is seasonally employed in the agricultural sector who tends not to change residences throughout the year (Anthony, Martin, Avery, & Williams, 2010). Migrant farmworkers, on the other hand, are individuals who are seasonally employed, but who have moved in the past 12 months for the purpose of employment (Anthony et al., 2010).

The NCFH estimates there are 3–5 million migrant farmworkers who, along with their families, travel throughout the United States, providing labor and expertise to the agricultural industry (Anthony et al., 2008; NCFH, 2012). Migrant farmworkers include citizens and legal residents as well as a significant population of undocumented workers (Nandi et al., 2010), the latter representing more than half of all migrant farmworkers (Frank, McKnight, Kirkhorn, & Gunderson, 2004; Hoerster et al., 2011; Nandi et al., 2010).

Data from the National Agricultural Workers Survey (NAWS) estimates that 75% of the migrant farmworkers are of Mexican descent (U.S. Department of Labor, 2005) and tend to travel in one of three agricultural streams (Magana & Hovey, 2003). The Western stream is comprised primarily of Mexican immigrants who return to Mexico,

southern California, or Arizona at the end of the harvest season (Magana & Hovey, 2003). The Midwest stream is comprised primarily of Mexicans who migrate from Mexico and Texas, returning to their home base at the end of the harvest season (Magana & Hovey, 2003). The third agricultural stream is the Eastern stream. It is comprised of various ethnicities including Central Americans, Mexicans, Puerto Ricans, and African Americans, who also return to their home base at the end of the harvest (Magana & Hovey, 2003).

Of the 3–5 million migrant laborers, approximately 22% are women (NCFH, 2009) and a large portion of the women are of childbearing age (Villarejo, 2003). Exact numbers of migrant laborers are unknown due to the transient and clandestine nature of the population (Reed, Westfall, Bublitz, Battaglia, & Fickenscher, 2005). Like men, women migrant farmworkers are exposed to many physical, chemical, and biological hazards that pose potential human health risks. However, women of childbearing age are at an increased risk of having reproductive health difficulties and adverse pregnancy outcomes as a result of exposure (Anthony et al., 2010; Bethal, Walsh, & Schenker, 2011; NCFH, 2009).

Agricultural work is believed to be one of the most dangerous jobs in the United States (U.S. Department of Labor, 2014b). Farmwork typically involves operating and servicing farm machinery, irrigating farm soil and maintaining irrigation systems, and harvesting and inspecting crops by hand (Anthony et al., 2010). Women farmworkers perform the same labor as men, which is known to be extremely labor intensive with workdays often lasting from dawn to dusk in all conditions, including high temperatures,

rain, and bright sun (Anthony et al., 2010; Bethal et al., 2011; Habib & Fathallah, 2012; Hansen & Donohoe, 2003). Attending to crops requires stoop labor and repetitive body movements that can result in musculoskeletal injuries (Anthony et al., 2010; Habib & Fathallah, 2012). Work-related musculoskeletal disorders are common for women agricultural laborers and include traumatic injuries, joint and tissue irritation, and accelerated joint degeneration (Hansen & Donohoe, 2003), which have been linked to adverse pregnancy outcomes (Gold & Tomich, 1994; Lima, Ismail, Ashworth, & Morris, 1999).

Women migrant farmworkers are also exposed to a variety of reproductive health hazards from the various chemicals used in agriculture (Bethal et al., 2011; Rogan & Ragan, 2007). Insecticides, herbicides, and fertilizers are widely used in agricultural practices to control pests and weeds (Ibrahim, Amer, Tahlawy, & Allah, 2011). Pesticides affect humans through three primary pathways: ingestion, inhalation, and dermal absorption (Rogan & Ragan, 2007). Chemical exposure can cause many negative health outcomes ranging from headaches and nausea to neurological deficits and birth defects (Anthony et al., 2010; Ibrahim et al., 2011).

Consistent exposure to pesticides is cause for concern for women during gestation (Ibrahim et al., 2011) and has been associated with decreased fertility, spontaneous abortion, stillbirth, premature births, low birthweights, developmental disorders, ovarian disorders, and disruption of hormonal function (Ibrahim et al., 2011). Several studies indicate the greatest risk of exposure to the developing fetus is during the first 3–8 weeks during the development of the neural tube (Rogan & Ragan, 2007).

Moreover, at times, migrant farmworkers labor in extreme field conditions, which can have adverse pregnancy outcomes. Employers who employ 11 or more workers are required by law to provide access to toilets and hand-washing facilities within ¼ mile of the work site (U.S. Department of Labor, 2014a; NCFH, 2009); however, some employers ignore existing field sanitation regulations (Arcury et al., 2012; Farquhar et al., 2009; NCFH, 2009). When toilet and sanitation facilities are not within walking distance of workers, women are often told to "hold it" (NCFH, 2009). Adverse health effects may result from urinary retention including urinary tract infections (UTIs). UTIs during pregnancy have been associated with low birthweight babies who are at increased risk of health problems as compared to normal weight babies (U.S. Department of Labor, 1998). Workplaces with inadequate field sanitation also increase the risk of spreading communicable diseases (Centers for Disease Control and Prevention [CDC], 2014). Proper hand washing with soap and water is important to prevent spreading intestinal parasites (CDC, 2014), which are found disproportionately to affect migrant workers (Ciesielski, Seed, Estrada, & Wrenn, 1993).

Employers are also required by law to provide access to potable water (Bischoff et al., 2012). Access to clean drinking water is considered a basic human right (United Nations, UN-HABITAT, WHO, 2010); however, migrant workers are at an increased risk of consuming unsafe drinking water because they have little control of their working environment (Bischoff et al., 2012; Ciesielski et al., 1993; VanDerslice, 2011). Several studies have found elevated levels of atrazine, a common herbicide used in agriculture to control weeds, in drinking water systems near farming communities during the

agricultural season (Ochoa-Acuna, Frankenberger, Hahn, & Carbajo, 2009). Consumption of atrazine-contaminated drinking water during gestation has been associated with low birthweight and small for gestational age infants (Ochoa-Acuna et al., 2009).

In addition to occupational hazards, migrant women of childbearing age have a host of barriers impacting their reproductive healthcare. Migrant women arguably have the most limited access to perinatal care as compared to other minority populations **(**Daniels, Noe, & Mayberry, 2006; NCFH, 2009; Reed et al., 2005). They experience numerous challenges to addressing reproductive health, including legal status, poverty, lack of education and language barriers, and access, (Anthony et al., 2010; Anthony et al., 2008; Bircher, 2009; Cristancho, Garces, Peters, & Mueller, 2008; Goertz, Calderon, & Goodwin, 2007; Hansen & Donohoe, 2003; Hoerster et al., 2011; Reed et al., 2005; Villarejo, 2003).

Their lack of access to perinatal care is partly due to their immigration status. Due to constant change in immigration legislation and health care laws, a fear of retribution for accessing services has been instilled in migrants throughout the United States (Farmworker Justice, 2014; Hoerster et al., 2011; Ivey & Faust, 2001; Kramer, Tracy, & Ivey, 1999). Often, undocumented female workers do not go to health care providers out of fear of legal complications and deportation (Hoerster et al., 2011; Ivey & Faust, 2001; Kramer et al., 1999). Additionally, many migrants who have the option to use free medical services believe utilizing these services will result in legal problems (Ivey & Faust, 2001; Kramer et al., 1999). A study conducted in California revealed that

75% of Salvadoran women and 54% of Mexican women who were undocumented stated fear of deportation as the primary reason for not using medical services while in the United States (Kramer et al., 1999). Their fear of deportation also leaves them with little to no power to challenge their employers about low wages or illegal employment practices (Farmworker Justice, 2014).

Over half of all migrant farmworkers live at or below the poverty threshold (Anthony et al., 2008) of approximately $11,800 for an individual and $23,000 for a family of four (Federal Register, 2012). On average, migrant laborers earn between $12,500 and $15,000 for individuals and $17,500 and $20,000 for a family of four (NCFH, 2012). Approximately 30% of migrant workers have total family incomes that fall below the poverty threshold (Anthony et al., 2008; Farquhar et al., 2009; Magana & Hovey, 2003). Poverty has been linked to adverse pregnancy outcomes primarily in terms of decreased opportunities for receiving healthcare that could provide early screenings and treatments for conditions that could be life-threatening for the mother or child (Izugbara & Ngilangwa, 2010; Nagahawatte & Goldenberg, 2008).

Another socioeconomic factor linked to adverse pregnancy outcomes is substandard housing, which has been connected to a variety of adverse pregnancy outcomes including respiratory disease and neurological disorders (Bashir, 2002; Villarejo, 2003). As a result of their migratory lifestyle and low socioeconomic status, migrant families often reside in housing provided by their employer, called migrant labor camps (Arcury et al., 2012; Magana & Hovey, 2003; Villarejo, 2003). The conditions of migrant labor camps vary greatly in terms of sanitation and access to basic amenities such

as hot water and shower facilities (Arcury et al., 2012; Farquhar et al., 2009; Villarejo, 2003). While State laws have specific sanitary regulations and require camps to be registered with the Department of Health or other state regulatory agency, some unregistered camps do exist (Farquhar et al., 2009; Villarejo, 2003). Nevertheless, in registered and unregistered facilities alike, access to bathrooms, laundry facilities, and hot water may not be available in sufficient quantities (Farquhar et al., 2009; Villarejo, 2003).

Constant migration and transient lifestyles also make it difficult to complete secondary education (Magana & Hovey, 2003). The average educational level of migrant workers is the eighth grade (NCFH, 2012). Although maternal education level has no direct link to adverse pregnancy outcomes, not having a high school diploma is associated with low health literacy (Hom, Lee, Divaris, Baker, & Vann, 2012). Health literacy is the degree to which individuals have the ability to obtain, process, and understand basic health care information and services that are available (Hom et al., 2012). Pregnant migrant women with low health literacy are at an increased risk of making uninformed health care decisions that impact both the mother and fetus (Hom et al., 2012).

Similarly, a lack of English language proficiency impacts migrant women's pregnancy outcomes. Approximately 80% of Mexican farmworkers have little to no English language skills (Cristancho et al., 2008; NCFH, 2009). Language barriers are often cited as the primary cause of poor provider-patient encounters in migrant populations (Cristancho et al., 2008). A lack of linguistic competency can result in

migrant women not seeking reproductive care or being less compliant with medication treatments due to poor communication or misunderstandings with healthcare providers (Cristancho et al., 2008; Goertz et al., 2007).

Migrant women also experience barriers to accessing perinatal care due to a lack of insurance (Cristancho et al., 2008; Goertz et al., 2007). Migrant farmworkers often lack health insurance with only 5% of farmworkers reporting employer-provided health insurance (NCFH, 2012). The average cost for prenatal care is $2,000 and delivery costs between $6,000 and $8,000 (Sonfield & Kost, 2013)—an amount the majority of migrant women without health insurance can't afford (Quandt, Clark, Rao, & Arcury, 2007). Although many migrant farmworkers meet criteria for Federal Medicaid and Food Stamp Programs, very few are able to receive these benefits because of state eligibility requirements (NCFH, 2012).

Furthermore, migrant women experience transportation issues related to geographic location, access, and cost (Cristancho et al., 2008). In rural farming areas public transportation is basically nonexistent and migrant women lack funds to pay for private transportation. This affects their ability to seek reproductive care (Cristancho et al., 2008).

Background of the Study

Previous studies have identified migrant women as being one of the most marginalized groups in the United States who experience barriers to accessing perinatal care (Anthony et al., 2008; Balaam et al., 2013) as a result of occupational hazards, socioeconomic status, and cultural barriers (Hansen & Donohoe, 2003; Hoerster et al.,

2011). As a result, migrant women face increased rates of adverse pregnancy outcomes as compared to other marginalized populations in the United States (Hansen & Donohoe, 2003; Hoerster et al., 2011).

One method to reduce the likelihood of adverse pregnancy outcomes is perinatal care (Balaam et al., 2013; Bircher, 2009; Daniels et al., 2006; Reed et al., 2005; Rodriguez & Rivieres-Pigeon, 2007). Perinatal care can be defined as the period between the decision to become pregnant or aware of pregnancy and 4-6 weeks after birth (Rodriguez & Rivieres-Pigeon, 2007). Perinatal care, like other health care services, has undergone several changes over the last decade, one of those being the ability to integrate services offered throughout the health care system (Rodriguez & Rivieres-Pigeon, 2007). Thus, perinatal care is not merely the absence of disease or illness; it is a set of services to improve pregnancy outcomes involving physical, mental, and social well-being for both the mother and child (Daniels et al., 2006; Rodriguez & Rivieres-Pigeon, 2007).

Perinatal care is divided into two segments: pre- and post-natal care. Prenatal care is health care a woman receives while she is pregnant (Bircher, 2009; Daniels et al., 2006; NIH, 2014; Reed et al., 2005) and is characterized by three main concepts: (a) early and continuing risk assessments; (b) health promotion; and (c) medical and psychosocial interventions and follow-ups (Boerleider, Wiegers, Mannien, Francke, & Deville, 2013). Early risk assessments performed during the first trimester are believed to be the most precise noninvasive screenings available, with an accuracy rate of approximately 85% for identifying abnormalities (Wapner et al., 2003).

Prenatal care also provides mothers with health promotion material to ensure both the mother and fetus have a balanced diet, complete with adequate nutrition and sufficient vitamins and minerals (Bircher, 2009; NCFH, 2009). According to U.S. Department of Health and Human Services (2012), mothers who do not get prenatal care are three times more likely to have a baby with low birthweight and five times more likely to die than those birthed by mothers who received prenatal care.

Similarly, postnatal care is recommended for women for the first 4–6 weeks after birth (Tinker, Parker, Lord, & Great, 2010). Postnatal care involves promoting and supporting breastfeeding, education about getting proper rest and good nutrition, and understanding conditions that require additional care for both the mother and child (Olander, Atkinson, Edmunds, & French, 2011; Tinker et al., 2010). Despite the importance of perinatal care migrant farmworkers typically do not seek reproductive care unless in emergency situations (Maher, Lurie, Trafton, & Dozier, 2011; NCFH, 2009). According to the NCFH (2009) only 42% of female migrant farmworkers in California assessed prenatal care services within the first 3 months of their pregnancy as compared to the national average of approximately 80% of all expecting mothers (Daniels et al., 2006; NCFH, 2009; Reed et al., 2005).

Problem Statement

The infant mortality rate among migrant workers is estimated to be twice the national average (Hansen & Donohoe, 2003). The Pregnancy Nutrition Surveillance System determined that out of 4,840 migrant women examined in California, 23.8% had unfavorable birth outcomes such as low birthweights, premature births, or were small for

their gestational age (NCFH, 2009). Premature births and low birthweights are indicators of social inequality (Kelly et al., 2008) and directly related to high morbidity and mortality rates (Smith, Manktelow, Draper, Springett, & Field, 2010; Tome, Guimaraes, Bettencourt, & Peixoto, 2009).

The World Health Organization identified maternal care management as a critical component of improving the health and wellbeing of both the mother and child (Tinker et al., 2010). In order to ensure adequate health outcomes, pre- and postnatal care is critical (Balaam et al., 2013; Boerleider et al., 2013; Lyberg, Viken, Haruna & Severinsson, 2012). Although there is a body of knowledge about the importance of perinatal care to reduce adverse pregnancy outcomes for migrant women (Balaam et al., 2013; Boerleider et al., 2013; Lyberg et al., 2012), barriers to accessing care (Daniels et al., 2006; Goertz et al., 2007; NCFH, 2009; Hom et al., 2012; Reed et al., 2005), and the perceptions of practitioners regarding maternal care management for migrant women (Lyberg et al., 2012), there is a gap in understanding migrant women's perceptions of perinatal care (Gurman & Becker, 2008; Lyberg et al., 2012). Hence, this research will fill this gap in gaining an understanding of how migrant women farmworkers of child-bearing age manage perinatal care while working in the fields.

Purpose of the study

The purpose of this study was to examine the beliefs and influences that guide migrant women farmworkers' views of perinatal care management while working in the fields. Although there are studies examining the lives of migrant farmworkers, often they group men and women farmworkers together as one homogenous group. However,

migrant women have very different health care needs as compared to their male counterparts. Therefore, this study focuses on migrant women farmworkers and specifically the perceptions of migrant women farmworkers' reproductive health issues. Understanding migrant women's perceptions of perinatal care management is critical in reducing mortality and morbidity rates for this population.

Nature of the Study

The nature of this study was qualitative. Decisions about what methodology is the best choice depends on the topic or issue the researcher is examining and the research question (Maxwell, 2013). The most appropriate methodology to examine the beliefs and influences that guide migrant women farmworkers' views of perinatal care management while working in the fields is a phenomenological study. Phenomenological research studies attempt to understand or portray individuals' common meaning of their lived experiences of a concept or phenomenon (Finlay, 2009; Giorgi, 2008; Moustakas, 1994; Starks & Trinidad, 2007). This research design focuses on describing in detail what all study participants have in common as they experience a specific event, concept, or phenomenon (Starks & Trinidad, 2007).

Gaining access to study participants is a process; one cannot go into a community and start conducting interviews without prior approval (Dalbye, Calais, & Berg, 2011). First, permission is sought from the Institutional Review Board (IRB) for human subjects research (Dalbye, Calais, & Berg, 2011). The IRB is a board of committee members from the campus community who review research projects for their potential to harm subjects. Once approval has been granted—but before interviewing participants begins—

all subjects need to read and sign an informed consent form. This form states the central purpose of the study, ensures participant confidentiality, addresses any potential risks, and provides expected benefits of the study for the participants.

According to Reid, Flowers & Larkin (2005), there is no set number of study participants; however, the goal is to have a sample size large enough to understand the characteristics of the phenomena being studied. Reid, Flowers & Larkin (2005) recommends between 5 and 25 study participants for a phenomenological study. The proposed number of participants to examine the beliefs and influences that guide migrant women farmworkers' views of perinatal care management during their migration to Northern Ohio was 15.

I believed 15 participants would provide a large enough sample size to answer the research questions. I contacted migrant outreach workers and various migrant farmwork organizations with the intent of building rapport with this population prior to beginning fieldwork. Once I began fieldwork, purposeful sampling techniques were used to identify migrant women of childbearing age who experienced gestation during an agricultural field season.

This phenomenological study was conducted in Northern Ohio due to the proximity of my location. The Ohio Department of Health is the governing authority over migrant camps and maintains a list of all registered camps in the state (OH Department of Health, 2013). The following counties in Northern Ohio are populated with the most migrant camps: Sandusky (14), Huron (8), Lake (8) Ottawa (8), Erie (6),

and Lorain (3) with a total capacity of 1,816 migrant workers (OH Department of Health, 2013).

Theoretical Framework

The theoretical framework that guided this study was the social-ecological model (SEM). The SEM stems from Bronfenbrenner's (1979) ecological perspective, which posits that behavior both affects and is affected by multiple influences. Similarly, the SEM theorizes that behavior is complex and can be explained through five levels of analysis: intrapersonal, interpersonal, institutional, community, and public policy (McLeroy, Bibeau, Steckler, & Glanz, 1988; Stokols, 1992). Each level is both independent of, and interdependent on, the other levels (McLeroy et al., 1988). Proponents of the SEM posit that most public health issues are too multifaceted to be understood by one level of analysis; instead they require a more comprehensive approach (Stokols, 1992). Thus, the SEM provided insight into how migrant women perceive maternal health care by drawing from various influences affecting their health care beliefs.

Research Questions

This study was guided by three research questions:

Research Question 1: What are the perceptions and attitudes of women migrant farmworkers in Northern Ohio regarding perinatal care management while following the crops?

Research Question 2: What type of work do women migrant farmworkers participate in during gestation in Northern Ohio?

Research Question 3: What conditions of farm work do women migrant farmworkers in gestation consider harmful to the fetus? Are they allowed to refuse certain types of work that may jeopardize the fetus? If so, what are their perceptions of continued employment if they refuse? And are they assigned to different types of work than females not in gestation?

Assumptions

The assumption prior to beginning fieldwork was that women migrant farmworkers want to have healthy pregnancies and protect themselves and their fetus from potential harmful effects as a result of their employment. The extent to which migrant women participate in preventive care may be related to their knowledge, attitudes, and access to prenatal care. Lastly, it is possible many women migrant farmworkers are undocumented and as a result might not want to participate in the study out of fear of deportation.

Limitations

This study was limited to women migrant farmworkers of childbearing age working in the State of Ohio. Migrant women's immigration status, socioeconomic level, educational level, and cultural barriers may be a hindrance to accessing healthcare while working in the fields.

Another possible limitation was the fact this study was a qualitative review of a population that is transient. A qualitative study is best suited to understand how migrant women manage maternity care while working in the fields; however, results cannot be generalized to a larger population or to migrant women in other areas.

Definition of Terms

Atrazine: A common herbicide used in agriculture to control weeds (Ochoa-Acuna et al., 2009).

Gestational age: The period of time between conception and birth to describe how far along the pregnancy is (NIH, 2014).

Low birthweight: When a baby is born weighing less than five pounds five ounces (NIH, 2014).

Migrant farmworker: An individual who meets the same definition as a seasonal farmworker but also establishes a temporary home owned by the farm owner during the employment period (Anthony et al., 2010).

Perinatal care: Is defined as the interval between the decision to have a child and one year after the birth (Rodriguez & Rivieres-Pigeon, 2007).

Postnatal care: The period after the women gives birth, often lasting six to eight weeks (NIH, 2014).

Premature birth: A baby who is born too early, before thirty-seven weeks (NIH, 2014).

Prenatal care: The health care a women receives while she is pregnant (NIH, 2014).

Reproductive care: A state of complete physical, mental, and social wellbeing for both the mother and fetus (NIH, 2014).

Spontaneous abortion: Spontaneous abortion or miscarriage refers to naturally occurring events that result in the loss of a fetus before the twentieth week of pregnancy (NIH, 2014)

Stillbirth: A fetus born at twenty weeks' gestational age or more with no heartbeat or respiratory effort (Nagahawatte & Goldenberg, 2008).

Significance

This study was important because it focused on perinatal care management for an underserved marginalized population in the United States (Gurman & Becker, 2008). Perinatal care is a critical factor in reducing adverse pregnancy outcomes for perinatal and newborn mortality (Tinker et al., 2010). Previous studies indicated that commencing prenatal care during the first trimester of gestation can reduce the risks of adverse pregnancy outcomes (Balaam et al., 2013; Boerleider et al., 2013; Lyberg et al., 2012).

Drawing from the SEM, this study provided a unique opportunity to understand the individual, social, and contextual factors, which, combined, led to how migrant women farmworkers manage their reproductive health. The results are expected to provide insight for public health professionals on the various aspects that guide maternal care decisions in order to improve infant mortality rates. Additionally, insights from this study will increase the likelihood that public health professionals will have a deeper understanding of the barriers that impede migrant women farmworkers' access to perinatal care.

Summary

In conclusion, despite being a vital component of a multibillion dollar business, migrant farmworkers are believed to be one of the most marginalized populations in the United States. Women of childbearing age make up 22% of the 3–5 million farmworkers who plant, maintain, and harvest crops across the country. Migrant women farmworkers are exposed to a variety of occupational health hazards and barriers that impede their access to perinatal care. Thus, migrant women farmworkers experience increased rates of adverse pregnancy outcomes.

Perinatal care is known to reduce morbidity and mortality rates for both the mother and child; nevertheless, the majority of migrant women do not partake in prenatal care during gestational periods. Therefore, this phenomenological study set out to explore the beliefs and influences that guided migrant women farmworkers' views of reproductive health and how they managed gestation during their migration to Northern Ohio.

Chapter 1 presented an overview of the study and insight into the theoretical base and methodology used to conduct the study. Chapter 2 presents a review of current literature on migrant farmworkers and perinatal care that supports the need for this study. Chapter 3 presents the methodology used to collect and analyze the data needed to answer the research questions. Chapter 4 presents the findings from the in-depth interviews and Chapter 5 presents an interpretation of the findings, recommendations for future research, and the social change implications.

Chapter 2: Literature Review

Introduction

In Chapter 2, the public health and social science literature was reviewed. It identified a need for continued research to examine the beliefs and influences that guide migrant women farmworkers' views of perinatal care management while working in the fields in Northern Ohio. Several studies have identified the importance of reproductive health and the potential socioeconomic factors that adversely affect pregnancy outcomes; however, much of the current literature has focused primarily on immigrants in urban areas or providers' perspectives of migrant farmworkers reproductive health. This focus leaves little research regarding migrant women farmworkers' perceptions of gestation and reproductive health while following the crops.

The review began by expounding on the search criteria, conceptual framework, and the methodology used to support this qualitative inquiry. The next section explored the current literature on reproductive health and occupational health disparities that can affect migrant women farmworkers' health. Additionally, this review explores the numerous barriers migrant women farmworkers face to receiving perinatal care.

Search Criteria

I conducted an inquiry based on peer-reviewed journals, data from public health and migrant farmworkers organizations, books, and personal communication. The databases used included MEDLINE with Full Text, CINAHL Plus with Full Text, Science Citation Index Expanded (ISI Web of Science), Science Direct, and Nursing & Allied Health Source. Keywords and phrases used as search terms included *migrant,*

migrant worker, seasonal worker, farmworker, Hispanic farmworker, immigrant, illegal, transient, maternal health, reproductive health, prenatal health, and *farmworker health.* Those of which presented sound science and compelling arguments on the topic of migrant reproductive health determined the articles selected for review. The data presented in this review were analyzed by using a literature matrix that outlined each article's research question, methodology and research design, sample, analysis and findings, and recommendations for future research.

Theoretical Framework

The search for relevant literature specifically on migrant reproductive health was challenging, in that there has been little research on migrant women and the interrelationships that guide their perinatal care decisions. The SEM has emerged as an addendum to the traditional focus of solely relying on the individual, positing the importance of intrapersonal, interpersonal, organizational, community, and policy related factors that can influence one's behavior (Fielding, Teutsch, & Breslow, 2010; Stokols, 1996). The literature presented offers a foundation for understanding the interrelationships between female migrant workers and their communities and helps communicate the importance of examining the multiple influences on reproductive health management.

Social Ecological Model

The theoretical framework that guided this study was the SEM (SEM). The SEM (SEM) provided a foundation to fully understand the multitude of factors that come together when making decisions about perinatal care for migrant farmworkers. SEM in

public health is used to identify and examine the relationships between biological characteristics of individuals and the interactions with peer groups, families, communities, workplaces, as well as the broad socioeconomic, cultural, and physical environments at the local, state, and national level (Fielding et al., 2010). SEM emphasizes the importance of the social and physical environments that shape patterns of disease as well as responses to them, providing a broader view of important determinants of health (Fielding et al., 2010).

SEM stems from Bronfenbrenner's (1979) ecological perspective that posits behavior both affects and is affected by multiple influences. Understanding the influences that guide behavior provides a sense of context, combining both naturalistic and experimental manners of observation (Bronfenbrenner, 1979). Bronfenbrenner proposed four levels for interpreting the interrelationships: micro-, meso-, exo-, and macro-systems. Sequentially, the interpersonal relations (micro), influences from multiple interactive settings (meso), external settings including the individual (exo), and culture (macro) amalgamate to describe human behavior and form the ecological environment (Bronfenbrenner, 1979).

McLeroy et al. (1988) expanded Bronfenbrenner's (1979) ecological model, a traditional psychology theory, by adding a health science element. McLeroy et al. (1988) identified a need to move away from the traditional paradigm of health sciences that focused on individual choices in health behavior and incorporated the ideal of social relationships that influence health behaviors. McLeroy et al.'s (1988) theory of SEM (SEM) posits behavior can be explained through five levels: intrapersonal, interpersonal,

institutional, community, and public policy (Stokols, 1995). Each level is both independent and interdependent upon the other levels (McLeroy et al., 1988). Specifically, the direction of interconnections is not only that each level affects behavior but also that all the levels can interact with each other while affecting a behavior (McLeroy et al., 1988). Figure 1 provides a diagram of the SEM.

Figure 1. Diagram of SEM. The model depicts five levels of influence impacting human behavior.

The intrapersonal level relates to individual beliefs, knowledge, behaviors, and concepts that explain discussions. Many traditional health-related interventions solely focus on the intrapersonal construct believing behavioral change is an individual event, not influenced by social factors (McLeroy et al., 1988).

The interpersonal level includes those relationships with family, friends, and other acquaintances that can have an influence on health behaviors. Often social relationships are an important component of ones' social identity and can provide insight toward resources that may impact health behaviors (McLeroy et al., 1988). In ecological systems behavioral health interventions that target interpersonal influences begin with the goal of changing the nature of existing relationships to implement behavioral change in the individual (McLeroy et al., 1988).

The organizational level examines how an individual's interactions within a group or specific setting influence their health behavioral decisions. Organizational settings such as school or work can be influential on an individual's health behaviors (McLeroy et al., 1988). For example, the introduction of technology in the workplace may increase productivity but reduce the amount of workplace physical activity resulting in decreased health (McLeroy et al., 1988; Stokols, 1996). Alternatively, organizations can have positive impacts on health behaviors. For example, memberships in community groups can improve coping strategies for dealing with physical ailments, mental distress, or addictions.

The community level comprises two characteristics: a) mediating structures or b) relationships among organizations and groups and the geographical and political terms that define the population (McLeroy et al., 1988). As the mediating structure, community is made up of family, church, friends, social networks, and neighborhoods, all of which impact ones' social identity (McLeroy et al., 1988; Stokols, 1996). These relationships

help shape an individual's behaviors and beliefs; thus, providing a foundation to shape many of the individuals' health behaviors.

The study of community as relationships among organizations and groups relates to those providing health related services. McLeroy et al. (1988) discussed the importance of pooling resources, specifically in rural areas, to facilitate health programs. Often community members with the most severe health problems are those without access to community power resources. This typically includes those falling in the lower socioeconomic status, the uneducated, or the underemployed. These groups are often identified as hard to reach or marginalized groups and are often left out of community health programs, thus, perpetuating poor health outcomes (McLeroy et al., 1988).

Lastly, the SEM examines public policies' influence on health behaviors. Public policy includes any laws, policies, or rules that impact the health of the community (McLeroy et al., 1988). An example is the ban on smoking in public places (Stokols, 1996) or the law stating that hospitals cannot refuse care for a woman in labor. Policy changes can also influence health behavioral choices. For example, changes in medical care eligibility can drastically change the number of individuals seeking care.

Most public health issues are too multifaceted to be understood by one level of analysis, and require a more comprehensive approach (Stokols, 1996). Thus, the SEM provided insight into how migrant women perceive reproductive health care by drawing from multiple influences that may impact their health care beliefs about perinatal care.

Methodology

Phenomenology

The most appropriate methodology to examine the beliefs and influences that guide migrant women farmworkers' views of perinatal care management while working in the fields in Northern Ohio was a phenomenological study. Phenomenological research focuses on experiences in everyday life (Reid, Flowers, & Larkin, 2005) and is well suited to examine migrant women's experiences about perinatal care. Phenomenological research is central to an interpretive paradigm (Reid, Flowers, & Larkin, 2005; Wojnar & Swanson, 2007) to understand or portray individuals' common meaning of their lived experiences of a concept or phenomenon (Dalbye et al., 2011; Hall, 2006; Nelson, 2007; Reid, Flowers, & Larkin, 2005).

Phenomenological research has been widely used by researchers in qualitative research to understand lived experiences. For example, Hall (2006) used a phenomenological study to examine the thoughts and feelings of mothers who suffered from postnatal depression. Unstructured, open-ended interviews allowed the participants to openly talk about their experiences with postnatal depression in as much detail as they wished and permitted the researcher to follow-up on answers that were unclear (Hall, 2006). Similarly, Nelson (2007) used phenomenological research methodologies to understand the inconsistent messages about breastfeeding from maternal-newborn nurses. Phenomenology methods allowed the researcher to gather data that provides rich in-depth descriptions of the perspectives from maternal and newborn nurses that quantitative research would not provide. Gathering detailed in-depth data about reproductive health

from migrant women farmworkers in Ohio will provide a better understanding of how they manage perinatal care while working in the fields.

Women Migrant Farmworkers

Women migrant farmworkers are a vital part of the multibillion dollar fruit and vegetable industry in the United States (National Center for Farmworker Health [NCFH], 2012; U.S. Department of Agriculture, 2014). Estimates suggest that women comprise approximately 22% of the 3–5 million migrant farmworkers who tend to travel in one of three agricultural streams throughout the United States providing labor and expertise to the agricultural industry (Flocks, Kelley, Economos, & McCauley, 2012; NCFH, 2012; U.S. Department of Labor, 2005). Women migrant farmworkers are largely Mexican with an average age of 33, with almost 50% falling under 30 years of age (Kelley et al., 2013). Despite their importance to the agricultural sector, women migrant farmworkers are one of the most marginalized populations in the United States (NCFH, 2009; Perez-Escamilla, Garcia, & Song, 2010) and have higher infant mortality and morbidity rates than other marginalized groups (Cristancho et al., 2008; Quelopana, Champion, & Salazar, 2009).

Reproductive Care

Perinatal Care

According to the CDC (2013) early enrollment in perinatal care and proper weight gain during gestation can reduce the risks of poor birth outcomes for both the mother and infant. Perinatal care (pre- and post-natal care) is a process to improve pregnancy outcomes by involving physical, mental, and social well-being for the mother, child, and

family during gestation and the four to six weeks post birth (Daniels et al., 2006; Rodriguez & Rivieres-Pigeon, 2007).

The concept of prenatal care dates back to the 1900's when researchers recognized a need to focus on care during the gestation period to reduce the rates of maternal morbidity and mortality (Alexander & Kotelchuck, 2001). However, traditional prenatal care research focused on infant outcomes, specifically birthweight and mortality, with results suggesting prenatal care having very modest to no effect (Teitler, Das, Kruse, & Reichman, 2012).

By midcentury, there was a notable reduction in low birthweights among mothers who received three or more prenatal visits (Alexander & Kotelchuck, 2001; Quelopana et al., 2009). More recent studies have taken a boarder approach to prenatal care by including the impacts of what is termed standard prenatal care (Teitler et al., 2012). Standard prenatal care consists of several visits during which the provider educates women about pregnancy, monitors medical conditions, tests for gestational health problems, and connects expecting mothers to other services (Teitler et al., 2012).

Today, prenatal care is viewed as a necessity and a preventive public health intervention to connect the mother and child to ancillary services (Alexander & Kotelchuck, 2001). The benefits of prenatal care are numerous including reduced maternal morbidity and mortality, higher birthweights, and identification of health problems in initial stages (Alexander & Kotelchuck, 2001; Teitler et al., 2012; Wheatley, Kelley, Peacock, & Delgado, 2008). Over the past two decades there have been several policy initiatives at the federal and state levels to address the prenatal care needs of those

considered most at risk (Wheatley et al., 2008). For example, the number of women who sought prenatal care between 1990 and 2003 rose from 75.6% to 84.1% (Wheatley et al., 2008).

Despite the importance of prenatal care for the health of mother and child, research suggests only 42% of migrant women used prenatal care services during the first trimester of pregnancy (NCFH, 2012), as compared to 82% of the general population (Dalenius, Brindley, Smith, Reinold, Grummer-Strawn, 2012; Reinold, Dalenius, Brindley, Smith, & Grummer-Strawn, 2009). The CDC analyzed data collected from the Pregnancy Nutrition Surveillance System between the years of 1989-1993 regarding prenatal care use, weight gain during pregnancy, and birth outcomes among migrant farmworkers (CDC, 1997). Of the results approximately 4800 migrant women identified, 52% had enrolled in prenatal care; however, they were more likely than the non-migrant workers to enroll during the third trimester (NCFH, 2009). Quelopana et al. (2009) found similar results, only 35% of Mexican women in their study initiated prenatal care during the first twelve weeks of pregnancy (Quelopana et al., 2009). However, Mexican women who lived with a partner were more likely to initiate prenatal care than their single counterparts (Quelopana et al., 2009). Findings also suggested women who perceived greater benefits from prenatal care were more likely to begin prenatal care within the first trimester (Quelopana et al., 2009).

Nevertheless, the benefits of prenatal care are not equivalent across all populations. Previous research suggests the use and effectiveness of prenatal care varies across social and biomedical factors (Alexander & Kotelchuck, 2001). Social and

biomedical factors are used to determine or identify women considered at risk. Social risks factors such as ethnicity, education, low socioeconomic status, environmental conditions, and age explain some of the variable data on pregnancy outcomes in the United States (Alexander & Kotelchuck, 2001; Misra, O'Campo, & Strobino, 2001; Nagahawatte & Goldenberg, 2008; Quelopana et al., 2009). According to Misra et al., (2001) the majority of low birthweight or preterm births are from mothers who are considered high risk with apparent social inequalities impacting their pregnancy.

Social Health Indicators

Premature births and low birthweights are indicators of social inequality (Kelly et al., 2008) and directly related to high morbidity and mortality rates (Smith et al., 2010; Tome et al., 2009). Migrant women farmworkers experience several challenges to social wellbeing that may negatively impact reproductive health including poverty, a lack of education, substandard housing conditions, and a lack of nutrition (Anthony et al., 2010; Anthony et al., 2008; Bircher, 2009; Cristancho et al., 2008; Goertz et al., 2007; Nagahawatte & Goldenberg, 2008; Reed et al., 2005; Villarejo, 2003).

Migrant women farmworkers are one of the most economically disadvantaged groups in the United States (Anthony et al., 2008). Approximately 30% of migrant workers have total family incomes that fall below the poverty threshold (Anthony et al., 2008; Farquhar et al., 2009; Magana & Hovey, 2003) with the majority of families earning just above the poverty threshold (NCFH, 2012). Another factor inhibiting migrant women's social wellbeing is a lack of education. As a result of constant migration and a transient lifestyle, migrant farmworkers do not typically complete

secondary education (Magana & Hovey, 2003). The average educational level for migrant farmworkers is the eighth grade (NCFH, 2012).

Moreover, substandard housing is associated with social inequalities and thus adverse pregnancy outcomes. The connection between substandard housing conditions and poor health is well documented (Thomson, Petticrew, & Morrison, 2001). Migrant farmwork is one of the few occupations were housing is often included as part of compensation (Vallejos et al., 2011). A few studies have examined the conditions of migrant camps and all report that substandard conditions are very common (Vallejos et al., 2011; Villarejo, Schenker, Joyner, & Parnell, 2010). Migrant camps vary in cleanliness and access to basic amenities such as bathrooms, hot water, and laundry facilities (Arcury et al., 2012; Farquhar et al., 2009; Vallejos et al., 2011; Villarejo, 2003). A study conducted in North Carolina found 89% of the migrant houses had at least one condition that violated housing regulations in the Migrant Housing Act (Vallejos et al., 2010). Two-thirds of the houses were moderately standard and 20% were severely substandard (Vallejos et al., 2010).

Migrant camps are also known to be overcrowded which is identified as a health and safety hazard (Abbet, Wilkerson, & Buxbaum, 2005). Overcrowding in homes is connected to a variety of diseases later in life (Bashir, 2002). Overcrowding and poor quality housing conditions have a direct link to poor mental health, developmental delay, below average height, and heart disease (Bashir, 2002). For example in California, migrant housing demands often exceed the availability of housing units; therefore, workers crowd into one house or find shelter in garages, vehicles, and animal stalls

(Villarejo et al., 2010). In North Carolina, almost half of all migrant camps had three or more people per bedroom (Vallejos et al., 2010).

The home environment is an important determinant in the health of the mother and child. In Brazil, women living in substandard housing were more likely to have low birthweight infants or preterm infant as a result of their living conditions (Vettore, Gama, Lamarca, Schilithz, & Leal, 2010). Similarly, in North Carolina researchers found housing conditions such as housing damage, property disorder, and nuisances were related to adverse pregnancy outcomes including preterm birth, low birthweight, and small for gestational age (Miranda, Messer, & Kroeger, 2012).

The last social inequality migrant women farmworkers experience is a lack of nutrition during gestation. Malnutrition and hunger disproportionately affect pregnant women in low-income households (Nagahawatte & Goldenberg, 2008). Nutritional status during gestation is measured by body size or BMI (body mass index) and nutritional intake during gestation (Nagahawatte & Goldenberg, 2008). Statistically, the highest rates of obesity in women occur among populations who have the highest poverty rates (Drewnowski & Specter, 2004). Additionally according to Drewnowski and Specter (2004) low cost food options are typically comprised of processed foods with added sugars, refined grains, or fats. Processed foods add calories but have little nutritional value to promote a healthy pregnancy (Drewnowski & Specter, 2004).

A study conducted of 150 migrant farmworkers in Northwest Michigan found a high prevalence of obesity, with more than 50% of the workers diagnosed as obese (Kowalski, Hoffman, & McClure, 1999). Another study conducted in Pennsylvania

found migrant farmworkers consumed a traditional Mexican diet that was deficient of fruits and vegetables (Cason, Snyder, & Jensen, 2004). Migrant workers stated the most difficult barriers to eating nutritional food was the lack of cooking facilities, lack of ability to cook, difficulty transitioning to an American diet, transportation, and money (Cason et al., 2004).

Bio-Medical Health Indicators

Biomedical or preexisting risk factors also play a role in birth outcomes. The health of the women prior to becoming pregnant can impact both the mother and developing fetus (Alexander & Kotelchuck, 2001; Misra et al., 2001; Nagahawatte & Goldenberg, 2008; Quelopana et al., 2009). Women who receive prenatal care are screened for acute and chronic illnesses to detect problems early on (Nagahawatte & Goldenberg, 2008); however, women not receiving prenatal care or receiving care in the third trimester are not benefiting from early detection.

According to Healthy People 2020 the wellbeing of the mother during gestation determines the health of the infant (U.S. Department of Health and Human Services, 2013). One of the most common causes women suffer complications during pregnancy is obesity (U.S. Department of Health and Human Services, 2013). A mothers' pre-pregnancy weight is a determining factor of infant birthweight (Dalenius et al., 2012). For example, research suggests a correlation between being underweight before pregnancy and giving birth to a low birthweight child (Doherty, Magaan, Francis, Morrison, & Newnham, 2006). Women who are obese have an increased risk of

preeclampsia, gestational diabetes, cesarean delivery, and are more likely to not breastfeed (Doherty et al., 2006).

Anemia is another common maternal health indicator. Anemia is a result of an iron deficiency and is common among women of childbearing age (Scholl, 2005). Pregnant women require higher amounts of iron; therefore iron supplementation is often recommended during gestation. Anemia during the first two trimesters doubles the risk of preterm delivery and triples the risk of delivering an infant with low birthweight (Scholl, 2005). Iron deficiency during the third trimesters doubles the risk of inadequate weight gain during pregnancy (Scholl, 2005).

Moreover an interpregnancy interval, the time between giving birth and the last menstrual cycle before the next pregnancy, of less than six months increases the risk of maternal mortality and morbidity, low birthweight, and preterm delivery (U.S. Department of Health and Human Services, 2012). Maternowska, Estrada, Campero, Herrera, Brindis, and Vostrejs (2010) argued that interpregnancy interval for Mexican immigrants were a combination of personal preferences and socio-cultural factors. In Mexican culture, the time period between marriage and the first child is generally a short period, often within the first year of union (Maternowska et al., 2010). Reproductive health is often not discussed, and the first pregnancy is often not planned.

Previous research has found that reproductive health outcomes are influenced by the power inequality in the family and society (Maternowska et al., 2010) and only approximately 53% of Mexican women make reproductive decisions (Quelopana et al., 2009). In Mexico, this inequality is the result of a long history of social practices based

on a paternalistic society where men often determine the family size (Maternowska et al., 2010).

Occupational Health Indicators

In addition to the social and biomedical health indicators discussed, women migrant farmworkers have several occupational health indicators potentially impacting their health and the health of their child. Farming and agricultural work continues to rank as one of the most dangerous occupations in the United States (U.S. Department of Labor, 2014b). In 2011, some of the highest rates of non-fatal injuries and illnesses were in the agricultural sector (Kelly, Flocks, Economos, & McCauley, 2013). Farmworkers labor in all seasons and conditions including extreme heat, cold, rain, and sun (Hansen & Donohoe, 2003). Farmwork typically involves operating and servicing machinery, irrigating farm soil and maintaining irrigation systems, and harvesting and inspecting crops by hand (Anthony et al., 2010).

Women often perform the same work as their male counterparts who are known to be extremely labor intensive with days often lasting from dawn to dusk with few breaks (Anthony et al., 2010). Stoop labor, working with soil and heavy machinery, carrying heavy loads, and climbing are known to result in increased musculoskeletal injuries and lower back pain for women farmworkers (Hansen & Donohoe, 2003; Kelley et al., 2013). Previous research has linked standing for long periods and heavy lifting to an increased risk of pre-term birth and miscarriages (Banerjee, 2009). Additionally, Hatch, Ji, Shu, and Susser (1997) argued women who worked long hours during pregnancy experienced decreased birthweight for gestational age.

In addition to long work hours, migrant women work in all climates including high temperatures with little to no shade (Hansen & Donohoe, 2003). Although migrant farmworkers do not typically complain about heat-related workplace issues (Hansen & Donohoe, 2003); providers have identified heat-related illnesses as an issue impacting maternal health for migrant women (Kelley et al., 2013). Several providers working with migrant farmworkers in Florida recognized dehydration as a potential occupational hazard that could have negative impacts on the developing fetus (Kelley et al., 2013). Heat exposure and dehydration have contributed to increased risks of spontaneous abortion, premature delivery, fetal malformation and growth retardation, and abnormal postnatal development (Kelley et al., 2013).

Another component of agricultural work that poses an increased health risk for pregnant migrant women and their developing fetus is pesticide exposure. Pesticide exposure can occur from direct and indirect contact for both farmworkers and their children (Payan-Renteria et al., 2012). Direct pathways are from contact with the pesticides during application, residues on clothing, bathing in or drinking contaminated water, or a lack of hygiene and consuming chemicals from contaminated hands (Hansen & Donohoe, 2003). Indirect pathways may stem from spray drift from application of pesticides to crops or children playing in the field and bringing the chemicals back to the household on their clothing, shoes, or hands (Hansen & Donohoe, 2003).

Pesticide exposure has been linked to a number of adverse pregnancy outcomes for agricultural workers (Acosta-Maldonado, Sanchez-Ramirez, Reza-Lopez, & Levario-Carrillo, 2009; Flocks et al., 2012; Kelley et al., 2013; Rogan & Ragan, 2007). For

example, several studies linked pesticide exposure to decreased reproductive ability (Abell, Juul, & Bonde, 2000; Curtis, Savitz, Weinberg, & Arbuckle, 1999; Idrovo et al., 2005), spontaneous abortion (Bretveld et al., 2008), still births (Flocks et al., 2012; McDonald et al., 1988), low birthweights (Perera et al., 2004; Villanueva, Durand, Coutte, Chevrier, & Cordier, 2005), ovarian disorders (Bretveld et al., 2008), and disruption of hormonal function (Ibrahim et al., 2011). Other studies have found prenatal exposure to pesticides resulting in preterm births (Restrepo et al., 1990), a delay in fetal development (Levario-Carrillo et al., 2004; Perera et al., 2004), and birth defects (Carbone et al., 2007).

The full extent of pesticide exposure is unknown due to the lack of accurate reporting procedures (Hansen & Donohoe, 2003) and the latent metabolism of pesticides in expecting mothers (Acosta-Maldonado et al., 2009). Metabolites of several harmful pesticides associated with adverse pregnancy outcomes have been detected in the blood and urine of gestating women from various countries including the Netherlands, United States, and Mexico (Acosta-Maldonado et al., 2009). Payan-Renteria et al. (2012) conducted a comparative study between 25 farmworkers and a control group consisting of 21 farmworkers not exposed to pesticides. The farmworkers exposed to pesticides showed acute poisoning levels and adverse health conditions including infertility and adverse outcomes that may be associated to pesticide exposure (Payan-Renteria et al., 2012).

Engel et al. (2011) found gestating women exposed to organophosphates, a common insecticide used in agricultural production, negatively affected their child's

cognitive development from birth up through early childhood. Similarly in Denmark, despite greenhouse safeguards and preventive measures to protect gestating women, greenhouse workers who were exposed to pesticides had adverse pregnancy outcomes from exposure (Anderson, et al., 2008).

Barriers to Health

Although women migrant farmworkers are considered an at risk population in regards to perinatal care, they face numerous barriers to receiving adequate health care in the United States. Barriers to access and utilization of health care services can be defined as individual, societal, structural, or provider based factors that prevent certain populations from receiving adequate health care or health promotion material (Cristancho et al., 2008). Some of the factors include a lack of insurance or limited coverage, communication issues, transportation, immigration status (Perer-Escamilla et al., 2010), unavailability of services, inconvenience, lack of time (Quelopana et al., 2009), lack of health literacy (Arcury & Quandt, 2007), and quality of care (Shafiei, Small, & McLachlan, 2012).

Lack of Health Insurance

The Migrant Health Act of 1962 was established to provide financial assistance to nonprofit agencies working with Migrant populations to help meet their health care needs (Hansen & Donohoe, 2003). The migrant health care system includes approximately 400 federally authorized and funded clinics across the country; however, only about 12-15% of the population actually receives services from these clinics (Hansen & Donohoe, 2003). As for reproductive health care many clinics and community health centers do not

offer obstetrical services due to the high cost of malpractice insurance (Warrick, Wood, Meister, & de Zapien, 1992). The NCFH (2009) estimates only 5% of migrant farmworkers have health insurance.

Limited Health Care Coverage

Of the roughly 5% of migrant farmworkers who have insurance, the high cost of premiums and co-pays often prevent them for using services (Cristancho et al., 2008; Warrick et al., 1992). Moreover, farm owners often require a probationary period for new employees, limiting coverage for the first six months to ensure sufficient employment. However, with transient migrant farmworkers often they do not stay longer than four to five months in one location thus leaving them without access to coverage. Moreover, for those with employee provided health insurance or who qualify for health assistance programs, it is often limited to the employee, leaving children and other family members without access (Cristancho et al., 2008).

Communication

Language and cultural factors are barriers to migrant farmworkers ability to access health care in the United States. Estimates suggest up to 80% of Latino migrant farmworkers do not speak English (NCFH, 2009). For example, Anthony et al. (2008) conducted a study in CA to understand the health needs of migrant farmworkers and found Spanish was the first language of 79% of respondents and 74% of them spoke no English.

Language barriers have also been linked to poor health outcomes for migrant farmworkers (Cristancho et al., 2008; Perer-Escamilla et al., 2010; Warrick et al., 1992).

A study conducted in Philadelphia found that Hispanic pregnant women had high rates of depression during pregnancy but did not receive care due to poor English language skills (Perer-Escamilla et al., 2010). Findings identified a lack of Spanish language interpreters to assist the Hispanic patients receiving prenatal care.

Similarly, Cristancho et al. (2008) identified two barriers when examining Hispanic immigrant populations' perceptions about barriers to treatment. The first was a lack of available medical interpreters to assist Hispanic immigrant populations. The second barrier was of the current medical interpreters available; many lacked the proper training needed to adequately assist the Hispanic immigrant populations (Cristancho et al., 2008).

Moreover, Hispanic women who are uninsured or lack medical coverage and do not speak English are less likely to be involved in decisions about their care and are treated with less respect than their white counterparts (Tandon, Parillo, & Keefer, 2005). For example, Tandon et al (2005) found Hispanic women with little to no English language skills perceived the medical staff providing prenatal services treated them with less respect than other minority groups. Moreover, a lack of patient centeredness inhibited the Hispanic mothers from clearly understanding information that was being presented during prenatal appointments (Tandon et al., 2005).

Transportation

Access to transportation is also a barrier to health care for many migrant women. Transportation related issues stem for geographic location, lack of public transportation, and a lack of funds to pay for transportation (Cristancho et al., 2008). In a study

identifying transportation barriers for Latino children in rural settings researchers found issues such as a lack of access to a vehicle, excessive distance from clinics, and the lack of public transportation in rural areas were all barriers that prevented parents from taking their children to a health care provider (Cristancho et al., 2008; Flores, Abreu, Olivar, & Kastner, 1998).

Additionally, a lack of transportation also played a role in Hispanic women not receiving cancer screenings (Cristancho et al., 2008). Kim, Chukwudozie, and Calhoun (2013) found that rural Hispanic women had higher rates of mortality from breast cancer than other ethnic women in part because they did not have transportation, which impacted their ability to receive treatment. Similarly, a study examining the use of pap tests for Hispanic women and non-Hispanic women in a rural setting determined a lack of transportation was associated with noncompliance for Hispanic women (Coronado, Thompson, Koepsell, Schwartz, & McLerran, 2004).

Immigration Status

Another barrier to receiving prenatal care is migrant women's immigration status. Many migrants live and work in the United States undocumented (Treaster, Hawley, Paschal, Molgaard, & St. Romain, 2006). Undocumented migrants often live in fear of seeking medical care and attending prenatal care appointments due to being reported to immigration officials (Esperat, Feng, Zhang, & Owen, 2007; Perer-Escamilla et al., 2010; Treaster et al., 2006). Additionally, Treaster et al. (2006) found undocumented migrant females are less likely to return for postpartum care or to seek neonatal care for their infants as a result of immigration status.

Lack of Services

For many migrant farmworkers a lack of services also prevents them from seeking health care. Many times migrants are not eligible for government assistance programs and they cannot purchase health insurance due to their status (Cristancho et al., 2008; Rehm, 2003). For those that may qualify, the bureaucratic system is frustrating and confusing when completing the required paperwork or they do not possess the required health literacy skills to complete the paperwork (Cristancho et al., 2008; Rehm, 2003). Additionally, in rural areas, there are very few providers willing to accept government programs (Casey, Blewett, & Call, 2004; Quelopana et al., 2009).

Additionally, due to their long workdays, house chores, and caring for their other children pregnant migrant workers do not have time to attend prenatal care appointments. Kilanowski (2010) conducted a focus group study with 31 migrant farmworker mothers in Michigan and Ohio to examine their learning preferences of existing health promotion material. Findings suggest the mothers found the health promotion material interesting but due to the long workday, at times from dawn to dusk, they didn't have time to attend health education classes (Kilanowski, 2010). Once they finished working in the fields, they returned home to prepare meals and attend to their children (Kilanowski, 2010).

Quality of Care

As a result of high numbers of adverse pregnancy outcomes among minority women in the United States, satisfaction with reproductive care services has become a growing concern (Shafiei et al., 2012). Assessments of how women perceive their care is one of the indicators of the quality of care women receive, and they provide a better

understanding of the need to adapt services to fit the population served (Shafiei et al., 2012; Wheatley et al., 2008).

Wheatley et al. (2008) examined minority women's perceptions of quality of care and found they typically experienced negative interactions with providers during their prenatal visits. Minority women reported less preventive guidance during their visits, which is in contradiction to the use of preventive care (Wheatley et al., 2008). Additionally, women reported a lack of trust from the medical providers as well as emotional distress.

Summary

This chapter reviewed the scholarly literature that identifies a need for continued research to examine the beliefs and influences that guide migrant women farmworkers' views of perinatal care management while working in the fields in Northern Ohio. The theoretical framework guiding this investigation was the SEM. SEM provided the groundwork to understand the multitude of factors that converge when making decisions about perinatal care for migrant women farmworkers. Additionally, phenomenological methodology allowed migrant women an opportunity to discuss reproductive health from their own understanding or perspective.

Reproductive health is often strongly correlated with perinatal care. Perinatal care includes both pre-and post-natal care and is the primary tool for monitoring the mother's heath during gestation. Research suggests commencing prenatal care during the first trimester is paramount to preventing adverse pregnancy outcomes (Alexander & Kotelchuck, 2001; Daniels et al., 2006; Rodriguez & Rivieres-Pigeon, 2007; Teitler et al.,

2012; Wheatley et al., 2008). However, almost half of migrant women farmworkers do not seek prenatal care during the first trimester and many do not seek care until the third trimester (NCFH, 2012).

Some of the main determinants migrant women experience in relation to reproductive health includes social, biomedical, and occupational health inequities. The social risk factors migrant women farmworkers experience include poverty, a lack of education, substandard housing conditions, and a lack of nutrition; all of which potentially play a role in adverse pregnancy outcomes. Additionally, biomedical or pre-existing health conditions such as obesity play a role in birth outcomes.

The last determinant of health migrant women farmworkers are challenged with is occupational health. Farming and agricultural work is one of the most dangerous occupations in the United States, yet migrant women of child bearing age often perform the same work as their male counterparts. Farmworkers often work from dawn to dusk in all climates performing stoop labor, carrying heavy loads, climbing, and exposure to pesticides. Standing for long hours, stoop labor, carrying heavy loads, and pesticide exposure have been linked to adverse pregnancy outcomes. Although women migrant farmworkers are considered an at risk population in regards to perinatal care, they face numerous barriers including a lack of insurance or limited coverage, communication issues, transportation, immigration status, unavailability of services, inconvenience, lack of time, lack of health literacy, and quality of care. Chapter 3 discusses the methodologies used to understand migrant women farmworkers beliefs and experiences

with managing reproductive health and gestation while working in the fields in Northern Ohio.

Chapter 3: Methodology

Introduction

The preceding chapter focused on the current literature on migrant women farmworkers' perinatal health and demonstrated a need for continued research to understand the phenomena of the beliefs and influences that guide how migrant women farmworkers manage perinatal care while working in the fields in Northern Ohio. This chapter outlines the research methodology used to examine this phenomenon as well the context of the study, the participant selection process (including inclusion and exclusion criteria), the role of the primary investigator, the measures taken to protect all study participants, and the data collection and data analysis procedures.

Research Methodology

The most appropriate methodology to examine the beliefs and influences that guide migrant women farmworkers' views of perinatal care management while working in the fields in Northern Ohio was phenomenology. Phenomenological studies attempt to understand or portray individuals' common meaning of their lived experiences of a concept or phenomenon (Finlay, 2009; Giorgi, 2008; Reid, Flowers, & Larkin, 2005; Starks & Trinidad, 2007). It is based on early 20th century philosophy and involves the use of rich descriptive interviews and in-depth analysis of lived experiences to understand how meaning is created through perception (Finlay, 2009; Giorgi, 2008; Reid, Flowers, & Larkin, 2005; Starks & Trinidad, 2007). Phenomenology adds to a fuller understanding of lived experiences by focusing on perceptions of beliefs that may be taken for granted

as common knowledge (Finlay, 2009; Giorgi, 2008; Reid, Flowers, & Larkin, 2005; Starks & Trinidad, 2007).

Phenomenological research starts with "concrete descriptions of lived experiences, in the first person, void of intellectual generalizations" (Finlay, 2009, p. 10). The researcher then analyzes the data and offers a synthesized account of themes of the phenomenon (Finlay, 2009). Although all phenomenological research is descriptive in nature, a number of scholars differ between descriptive phenomenology versus interpretive phenomenology (Finlay, 2009; Giorgi, 2008). In descriptive phenomenology, which was inspired by the German philosopher Edmund Husserl in the 1930s, researchers look for general meaning of the phenomena by staying close to the richness of the data collected and restrict themselves from making assertions (Finlay, 2009). In contrast, interpretative phenomenological research has emerged from hermeneutic philosophers, such as Heidegger and Ricoeur, who argued for the importance of the researcher's interpretation of the lived experiences (Finlay, 2009). This approach is phenomenological in that it includes rich detailed examinations of personal experiences and is concerned with individual's perceptions of the phenomena (Finlay, 2009; Reid, Flowers, & Larkin, 2005), while at the same time, the researcher takes an active role in the process (Finlay, 2009). The researcher is trying to understand the point of view of the study participants while simultaneously interpreting the results to identify if there is more going on than what the study participants comprehend (Finlay, 2009).

Moustakas (1994) embraces the phenomenological ontological view of accepting participant's realities within a specified context while understanding that multiple realities may exist within one population. Within this context, individual differences may occur; however, they are no less valid. Aspects of phenomenology used in this study will be interpretive because the primary aim was to understand participants' realities by examining individual, family, organizational, community, and policy experiences that potentially impacted how they managed perinatal care.

Research Questions

This study used interpretative phenomenological methods to understand the phenomena, context, and themes of perinatal care in migrant women farmworkers in Ohio. The foundation of interpretive phenomenology discussed previously was used to shape the study. The research questions guided the study by focusing the data collection and analysis to answer the following questions:

Research Question 1: What are the perceptions and attitudes of migrant women farmworkers in Northern Ohio regarding perinatal care management while following the crops?

Research Question 2: What type of work do female migrant farmworkers participate in during gestation in Northern Ohio?

Research Question 3: What conditions of farmwork do female migrant farmworkers in gestation consider harmful to the fetus? Are they allowed to refuse certain types of work that may jeopardize the fetus? If so, what are

their perceptions of continued employment if they refuse? And are they assigned to different types of work than females not in gestation?

Qualitative Interviews

The above research questions within the context of phenomenological methodology directed the interview process. Qualitative research regularly relies on in-depth interviewing as the primary data collection tool (Starks & Trinidad, 2007). Interviewing is a tool to gather information that one cannot directly observe such as thoughts, feelings, ideas, intentions, or behaviors that took place (Starks & Trinidad, 2007). Thus, the purpose of interviewing is a means to allow the researcher to enter into the participants' perspective (Starks & Trinidad, 2007). The design of the questions should encourage participants to talk openly about their experiences and understanding. Open-ended questions tend to be less leading and allow participants to answer as they choose as opposed to closed-ended interview questions. Open-ended interviews that rely on predetermined questions that all study participants are asked is sometimes referred to as semi-structured interviewing (Reid, Flowers, & Larkin, 2005). One limitation of this approach is it does not allow for variation or pursuing topics or questions that are not predetermined (Whitehead, 2003). Additionally, a structured approach reduces the extent individual nuances or differences can be teased out from the data (Whitehead, 2003).

Nevertheless, semi-structured in-depth interviewing techniques are the most widely used format in qualitative research (DiCicco-Bloom & Crabtree, 2006). Semi-structured interviewing is ideal for novice researchers (Patton, 2002), as it provides a clear structured format to follow (DiCicco-Bloom & Crabtree, 2006). The semi-

structured approach is also ideal when confronted with time constraints (DiCicco-Bloom & Crabtree, 2006). According to DiCicco-Bloom and Crabtree (2006) semi-structured interviewing is the preferred data collection tool when the researcher has one chance to interview the study participant in the field.

Participant Selection

Gaining access to study participants is a process; one cannot go into a community and start conducting interviews without prior approval (Dalbye, Calais, & Berg, 2011). First, permission was obtained from the Institutional Review Board (IRB) approval number 09-23-14-0282350 at Walden University. The IRB is a board of committee members from the campus community that reviews research projects for their potential to harm to human subjects.

This study was conducted in Northern Ohio, which is a part of the Midwest agricultural migration stream in the United States (Magana & Hovey, 2003). The Ohio Department of Health is the governing authority over migrant camps and maintains a list of all registered camps in the state (OH Department of Health, 2013). Northern Ohio was selected primarily out of proximity to where I live. The following counties in Northern Ohio are populated with the most migrant camps: Sandusky (14), Huron (8), Lake (8) Ottawa (8), Erie (6), and Lorain (3), with a total capacity of 1,816 migrant workers (OH Department of Health, 2013).

Prior to submitting the IRB application I contacted the IRB board to inquire if I needed Letters of Cooperation from the farm owners to submit with the application. The IRB board stated I would need to have signed letters of cooperation from each farm

owner prior to approval. Therefore, I sent an introduction letter (see Appendix B) introducing myself and explaining the central purpose of the study and how the study may benefit them, as well as, a letter of cooperation (see Appendix A) to 25 farm owners with the largest migrant camps registered with the Department of Health. Out of the twenty-five letters, I received four signed Letters of Cooperation from farms in the following counties: Erie, Huron, Sandusky, and Stark. The total capacity of migrant farmworker housing at the four farms was 602.

In addition to contacting the farm owners I also contacted the migrant health outreach workers in Northern Ohio and the migrant camp inspectors from the Department of Health in Ohio. The outreach workers primarily distribute information about the various services available to the migrant farmworkers in their respective areas. Therefore, migrant health outreach workers were another means to gain access to migrant women farmworkers off-site of farm property.

Once I received IRB approval from Walden University I contacted each of the farm owners and set up times to meet with them and answer any questions they had regarding the study. After meeting with the farm owners I went to each migrant camp and posted flyers (see Appendix C) stating the central purpose of the study and my contact information for participant recruitment. Flyers were posted in both Spanish and English to capture participants with either English or Spanish as their primary language. Additionally, with permission from the farm owners I provided a brief presentation to the women farmworkers during their off time without a representative from the farm present explaining my research and provided my contact information for them to contact me

privately at a later time to answer any questions or to set up a convenient time to conduct an interview. Additionally, during the presentation I stated the dates that I would be back to the migrant camp if they would like to participate in the study. Lastly, I emailed a copy of the flyer in both English and Spanish to Maria Cruz-Lucio, Supervisor at the Ohio Department of Job and family Services, who works directly with migrant women farmworkers. Ms. Cruz-Lucio agreed to post a copy of the flyer at local establishments (i.e. laundromat or grocery store) frequented by migrant women farmworkers in areas that I did not have signed Letters of Cooperation from the farm owners to conduct interviews.

All study participants had a minimum of one week after the presentation at the farm or after contacting me regarding participation from a flyer posted in the local area to think about participating or to ask additional questions about participating in the study. During the presentation I reviewed the information on the informed consent document (see Appendix E) to allow adequate time for potential study participants to ask questions. The informed consent document stated the central purpose of the study, ensured participant confidentiality, addressed potential risks, and provided expected benefits of the study for participants. Also, before having study participants sign the consent form I asked again if they had any additional questions or comments. The informed consent form was printed in both English and Spanish as approximately 80% of the migrant farmworkers in the United States are of Hispanic descent (Hansen & Donohoe, 2003). For this study 100% of the study participants reported Hispanic descent and only two of the participants spoke English, the other fourteen women spoke only Spanish. I was also

prepared to read the informed consent form to study participants who requested it to be read as some participants may have had poor reading skills. However, all study participants stated they could read the informed consent form. If after signing the consent form or during the interview the study participant decided not to proceed I would have immediately stopped the interview process but no one requested to stop the interview early.

All interviews were conducted during non-work hours of the migrant women farmworkers. Therefore interviews were conducted in the evenings or on Sundays, which was typically their only day off. For those who agreed to proceed with the interview process I conducted face-to-face in-depth open-ended interviews based on the interview guide (see Appendix D) in the language the study participant felt most comfortable speaking. The majority of interviews were conducted in Spanish (87%; $n = 13$), in which I am fluent; the other 13% ($n = 2$) were conducted in English.

According to Reid, Flowers, & Larkin (2005) there is no set number of study participants; however, the goal is to have a sample size large enough to understand the characteristics of the phenomena being studied. Similarly, Reid, Flowers, & Larkin (2005) posited that the sample size was sufficient when the researcher had gleaned sufficient detailed data from participants and the setting to answer the research question. However, qualitative researchers generally work with small sample sizes (Reid, Flowers, & Larkin, 2005). Reid, Flowers, & Larkin (2005) recommend between 5 and 25 participants, while other researchers recommend three to ten participants for a phenomenological study. The proposed sample size to examine the beliefs and

influences that guide how migrant women farmworkers manage perinatal care management while in the fields was 15 participants. Based on previous phenomenological studies I believed 15 participants would provide a large enough sample size to answer the proposed research questions.

Qualitative research has a broad range of sampling strategies ranging from a complex case to examining across cases (Starks & Trinidad, 2007). The most common method for selecting participants is purposeful sampling (Starks & Trinidad, 2007). Purposeful sampling is a tool researchers use to select individuals and locations because they can purposefully elicit information to answer the research question or phenomena being studied (Starks & Trinidad, 2007). Thus, purposeful sampling techniques were used to identify participants who had knowledge about managing reproductive health while following the crops in Northern Ohio.

One method of purposeful sampling is criterion sampling. Criterion sampling is a means of selecting study participants based on certain criteria. Criterion for this study included study participants must be migrant women farmworkers ranging in age from eighteen to forty. This age range was selected based on the premise that older mature women may have diminished memories of some of the challenges of maintaining reproductive health while working in the fields. Additionally, they must have experienced a minimum of one gestational period while working in the Midwest agricultural stream. All potential participants who met the criteria were asked to participate until 15 participants had been interviewed.

The next step of the data collection process is field issues. The researcher needs to anticipate potential field issues prior to going into the field (Maxwell, 2013). Some things to think about prior to beginning fieldwork are gaining access, what role the research will take, the mechanics related to conducting the interview, locating documents or audiovisual data, and ethical issues (Maxwell, 2013). One area I had to be cognizant of was my own beliefs about migrant women farmworkers and reproductive health and gestation issues they may have while working in the fields and not let these beliefs influence the study participants. Additionally, I had to think about encountering individuals who did not feel comfortable voicing their opinion about reproductive health for fear of reprisal from the farm owners. Similarly, the farm owners might be apprehensive of my presence in relation to immigration status of the women. I did not inquire about immigration status as a component of this investigation; therefore, I made sure to discuss this in the introductory letters as well as during initial conversations with the farm owners. Additionally, farm owners might have had concerns with my presence in the migrant camps or in the fields in relation to substandard housing/working conditions. This concern was also covered in the introductory letter sent to the farm owners by stating the primary purpose of the research was not to conduct inspections of housing or working conditions.

Data Collection

Upon approval from Walden University's IRB board I collected data in Northern Ohio between the months of September and October 2014 while fieldwork was occurring. In phenomenological research the researcher is the primary tool for data

collection (Moustakas, 1994); thus, I was the primary data collection tool. All participants who agree to proceed with the interview after signing the informed consent form were asked permission to audio record the interview. All participants agreed to have the interview audio recorded for accuracy. Proper names were not used; I assigned numbers and pseudonyms to each study participant to protect their privacy and as a means to de-identify the data. Interviews lasted 45–90 minutes and were conducted inside to ensure privacy and confidentiality.

For confidentiality, each farm provided an enclosed room on farm property to use for interviews; however, all of the migrant women (n = 15) stated they felt more comfortable conducting the interview in their respective homes. All of the interviews were conducted in the kitchen area of the home. The house provided privacy as well as protection from the elements. Each interview was guided by a structured interview worksheet to aide in consistency between all study participants (Maxwell, 2013). At the completion of the interview I provided all study participants with a crisis line number that had the capability to discuss sensitive topics while maintaining confidentiality in case they experienced stress or emotional discomfort from the interview or from discussing a sensitive topic. The crisis number was 1-800-273-8255. The crisis line had both Spanish- and English-speaking counselors to provide adequate services in a language that is most comfortable for the caller. Additionally, I provided the phone number for the local migrant health care mobile unit in the region closest to their migrant camp for future use if they needed.

To capture self-reflections during interviews and to identity themes as well as for bracketing, I kept a research journal (Starks & Trinidad, 2007). I used bracketing to capture my thoughts, reactions, and observations of nonverbal communication while in the field.

Data Management and Analysis

In qualitative research, data management is a means for storing, coding, making sense of codes, and presenting findings to the intended audience (Smith & Firth, 2011). According to Smith & Firth (2011) data management techniques need to be in place before the research project begins. The primary issues when dealing with data management are ensuring a) high quality accessible data; b) documentation; c) and retention of data after the study is complete (Smith & Firth, 2011).

To ensure adequate data collection, documentation, and retention this study used computer assisted qualitative data analysis software (CAQDAS). There are several CAQDAS programs available but I selected NVivo10 by QSR International (Smith & Firth, 2011). I have previous experience with using NVivo from a position I worked as a medical anthropologist in 2008 and two qualitative courses I was enrolled in at Walden University. NVivo10 has several key features including the ability to store data and files together in a single file, comes in multiple languages, has a merge function for team projects, and allows for easy manipulation of data (Smith & Firth, 2011). Also, the software has concept-mapping which allows the researcher to show visual relationships using codes (Smith & Firth, 2011).

Validity and Reliability

Qualitative research is inherently subjective because the primary research tool is the researcher (Starks & Trinidad, 2007). The researcher makes all the decisions regarding coding, themes, decontextualizing, and recontextualizing (Starks & Trinidad, 2007). In phenomenological research the researcher must be honest and vigilant of their own perspective, beliefs, and developing hypothesis (Starks & Trinidad, 2007). One method researchers can maintain transparency and self-reflection is by bracketing (Starks & Trinidad, 2007). The phenomenological approach supports the use of bracketing to conduct self-reflection during interviews to add reflections, processing, and support (Starks & Trinidad, 2007). Other reflexive practices include consulting with mentors, advisors, committee members, and colleagues throughout the data analysis process.

To ensure validity for data collection, all interviews (with consent) were audio recorded using a digital recorder with an external microphone and transcribed verbatim; first in Spanish, then transcribed from Spanish to English. All interviews followed a structured interview worksheet to aide in consistency between study participants. The interview transcriptions were typed into a word document on a password protected personal computer. The word document, observations, field notes, and audio files were then uploaded to NVivo10 on a password protected computer for data management and analysis. A systematic process of coding guided data analysis in which statements were analyzed and grouped into themes that represented the phenomena (Starks & Trinidad, 2007). Statements by the study participants that may have been taken for granted would

be given special attention to describe what was experienced as well as how it was experienced (Starks & Trinidad, 2007).

Summary

This qualitative study explored the beliefs and influences that guide migrant women farmworkers' views of perinatal care management while working in the fields in Northern Ohio. The theoretical framework guiding this study was phenomenology. Phenomenology was used to create a caring, self-reflective, and nonexploitive relationships that helped produce a structural description (Moustakas, 1994) of migrant women's perceptions of reproductive health and gestation in Northern Ohio. This chapter focused on the context of the study, the participant selection process including inclusion and exclusion criteria, the role of the primary investigator, the measures taken to protect all study participants, and data collection and analysis processes.

Fifteen migrant women between the ages of 18 and 40 who experienced at least one gestational period while working in Northern Ohio were asked to participate in the study. After the study participants had time to ask questions and read and sign the informed consent form, I conducted open-ended in-depth interviews to understand their beliefs and experiences regarding gestation while working in the fields. All data was transcribed and uploaded in to NVivo10 for data management and analysis. Additionally, I used bracketing to ensure transparency of my beliefs, thoughts, and observations during fieldwork. Chapter 4 discusses the analysis and findings from the study.

Chapter 4: Results

Introduction

This chapter presents the findings from in-depth interviews with migrant women farmworkers' regarding their views of perinatal care management during their migration to Northern Ohio. The purpose of this study was to examine the beliefs and influences that guide migrant women farmworkers' views of perinatal care management while working in the fields in Northern Ohio. Several studies have identified the importance of reproductive health and the potential socioeconomic factors that adversely affect pregnancy outcomes; however, much of the current literature has focused primarily on immigrants in urban areas or providers' perspectives of migrant farmworkers reproductive health. Additionally, this chapter describes the research instrument, community partners, setting, recruitment, data collection process, and the qualitative data analysis. Interpretation of the data is discussed in chapter 5.

Previous studies examined the lives of migrant farmworkers; however, they often grouped men and women farmworkers together as one homogenous group. However, migrant women have very different health care needs as compared to their male counterparts. Therefore, this study focused on migrant women farmworkers and specifically the perceptions of migrant women farmworkers' perinatal care management issues. Understanding migrant women's perceptions of perinatal care are critical in reducing mortality and morbidity rates for this clandestine population.

For this study, I used a phenomenological research design to elicit migrant women farmworkers' beliefs about perinatal care management. Phenomenology relies on

rich descriptive interviews and in-depth analysis of lived experiences to understand or portray individuals' common meaning of a concept or phenomenon (Finlay, 2009; Giorgi, 2008; Starks & Trinidad, 2007). Phenomenological research begins with "concrete descriptions of lived experiences, in the first person, void of intellectual generalizations" (Finlay, 2009, p10). The researcher then analyzes the data and offers a synthesized account of general themes of the phenomenon (Finlay, 2009).

The qualitative data was collected by in-depth face-to-face interviews with 15 migrant women farmworkers during the months of September and October 2014. Only migrant women farmworkers between the ages of 18 and 40 were included. This age range was selected based on the premise that older, mature women may have diminished memories of some of the challenges of maintaining reproductive health while working in the fields. Additionally, participants must have experienced a minimum of one gestational period while working in the Midwest agricultural stream.

Research Tools

I developed an interview guide (see Appendix D) that consisted of seven demographic questions and 22 open-ended questions. The first section pertained to basic information including age, education level, and number of children. The second portion of the interview guide focused on answering the three research questions:

Research Question 1: What are the perceptions and attitudes of women migrant farmworkers in Northern Ohio regarding perinatal care management while following the crops?

Research Question 2: What type of work do women migrant farmworkers participate in during gestation in Northern Ohio?

Research Question 3: What conditions of farm work do women migrant farmworkers in gestation consider harmful to the fetus? Are they allowed to refuse certain types of work that may jeopardize the fetus? If so, what are their perceptions of continued employment if they refuse? And are they assigned to different types of work than females not in gestation?

Community Partners

For participant recruitment I collaborated with four farms in Northern Ohio with migrant worker camps. Before submitting my IRB application I sent an introduction letter (see Appendix B) and letter of cooperation (see Appendix A) to 25 farm owners with migrant camps registered with the Ohio Department of Health introducing myself and explaining the central purpose of the study. I received four signed Letters of Cooperation. The total capacity of migrant farmworker housing at the four farms was 602. Before conducting any interviews at the respective farms I called the owners to set up a time to visit the farm and speak with them about my research and answer any questions they had.

I also provided a copy of the flyer in both English and Spanish (see Appendix C) to Maria Cruz-Lucio, Supervisor at the Ohio Department of Job and Family Services, who works directly with migrant women farmworkers. Ms. Cruz-Lucio agreed to post a copy of both flyers at local establishments frequented by migrant women farmworkers in areas that I did not have letters of cooperation. For the farms that I did not have signed

letters of cooperation from I could conduct interviews with the women off-site. Unfortunately, I did not recruit any participants from this method.

Study Setting

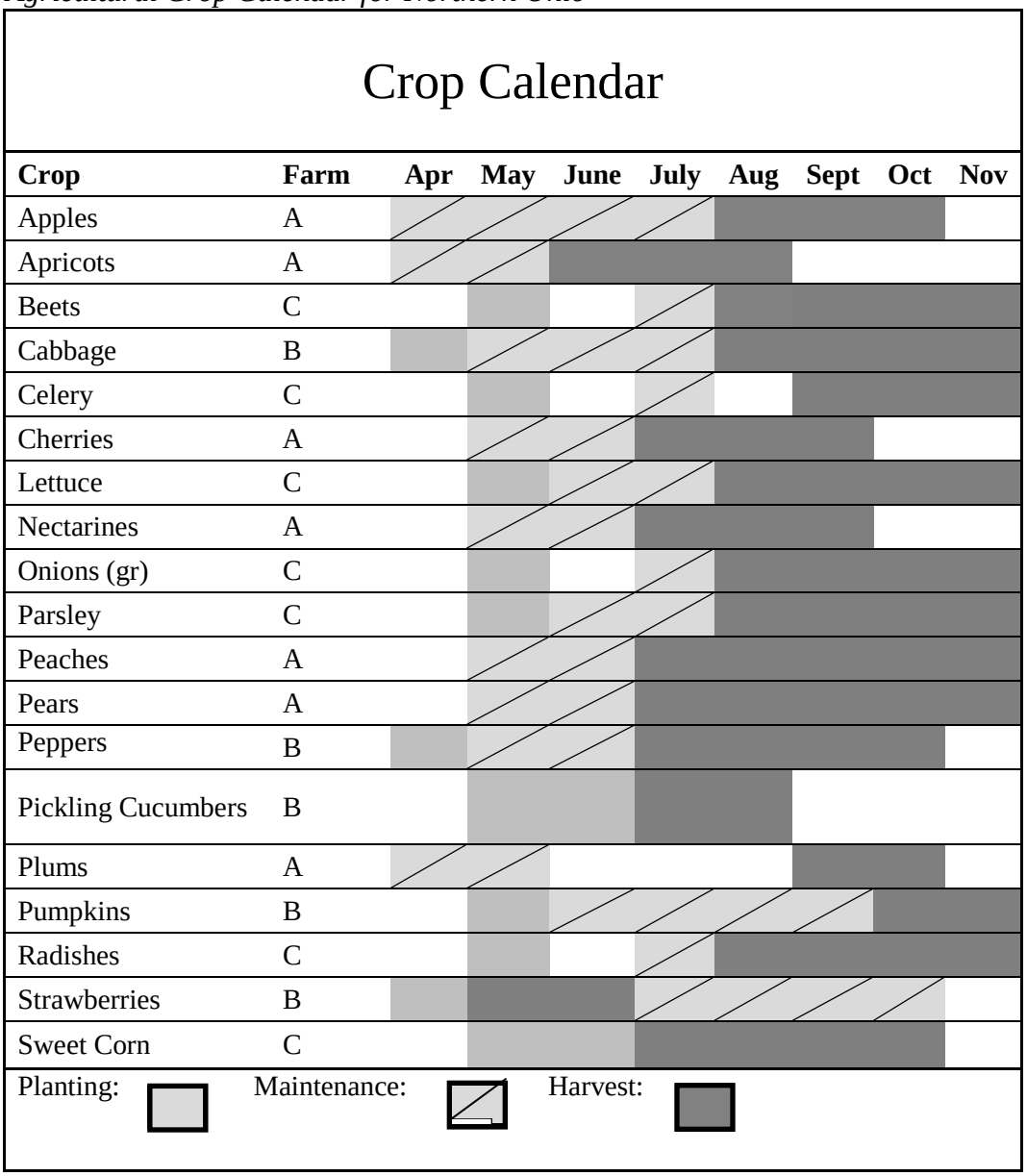
This study was conducted within three counties in Northern Ohio: Huron, Erie, and Sandusky counties. I limited the study setting to Northern Ohio primarily due to two factors: (a) the Northern region of Ohio is populated with the most migrant camps and (b) location was within driving distance from my home in Columbus, OH.

Farms

Although four farms signed letters of cooperation I only interviewed at three of the farms, Farm A, B, and C. I did not conduct interviews at the fourth farm because the migrant women did not meet my research criteria. Farms A and B were equivalent in size with each farm managing approximately 400 acres of arable land. Farm A primarily produces apples, peaches, cherries, plums, pears, apricots, and nectarines. Farm B produces a variety of produce including strawberries, pumpkins, peppers (bell, jalapeno, and banana), pickling cucumbers, and red cabbage. Farm C was much larger than the other two, with approximately 2000 acres of arable land. The predominant crops produced at Farm C include: radishes, beets, lettuce, parsley, sweet corn, green onions, and celery (see Table 1).

Table 1

Agricultural Crop Calendar for Northern Ohio



Migrant Camps

All three farms have migrant housing on site. Farm A has six individual units with a total capacity of twenty-six people. Farm A was the only location to have free-

standing single story stick built houses with white siding, a front porch, and wood flooring inside each unit. Each unit consisted of a small kitchen, dining area, and living room with two bedrooms and a bathroom with standing shower. Farm A had the lowest people per house ratio with an average of four.

Migrant housing at Farms B and C were constructed of cement block with four single story units connected together. The walls on the inside were exposed cement block and the floors were poured cement. Each unit had an open room with a small kitchen area and a table. Each unit had two bedrooms and one bathroom with a standing shower. These units were much smaller that the units at Farm A with no space for a living room and dining area. Farm B had eleven units with a total capacity of 55 people with an average of 5 people per unit. Farm B had a total of three separate buildings with four units and one building with three units. One family would be assigned to one bedroom and they would share the kitchen or common area. Therefore, each unit maintained two families, with all members of one family sleeping in one bedroom and the other family in the second bedroom.

The third location, Farm C, was the largest migrant camp with a total of thirty-six units with a total capacity of 250 farmworkers resulting in approximately seven people per unit. Farm C had six separate buildings with four units per building. Farm C also housed two families per unit therefore two families would share the common area and have one bedroom per family. Farm C also had an outside pavilion the migrant farmworkers used for gatherings on the weekends.

Data Collection

Before going to the respective farms to begin data collection I contacted the farm owners to set up a time to visit the farm and speak with them about my research and answer any questions they had. After meeting with the farm owners, in order to ensure non-coercion of study participants I went to each of the camps and posted flyers with the central purpose of the study and study participant criteria as well as my contact information and a date that I would return to the camp (see Appendix C).

Additionally, with permission from the farm owners I went door-to-door at each camp and introduced myself and provided a brief overview of my research and a date that I would return if they were interested in participating in the study. I provided my contact information for them to contact me privately at a later time if they had any additional questions or to set up a time to conduct an interview. All study participants had a minimum of 1 week and up to 4 weeks after the initial discourse and distribution of the flyers to think about participating in the study or to ask additionally questions about the study. During the introduction I also reviewed the information on the informed consent document (see Appendix E) to allow adequate time for study participants to ask questions.

Upon my return to the prospective camps I went door-to-door reintroducing myself, explaining my research again and asked all migrant women who met the criteria if they would like to participate in the study. The first time I went to one of the migrant camps I walked around to observe and talk to people and explain why I was there. I found that none of the women and very few of the men were willing to talk with me.

They seemed very guarded. Later in the evening after about 4 hours of being at the migrant camp one gentleman told me they all think I am from Immigration. I assured him I was not and he stated "Come back tomorrow around 10 AM." I left that evening about an hour later and returned to the camp the next morning at 10 AM. Much to my surprise, everyone was very welcoming and every migrant woman I asked to participate in the study agreed.

Participant Selection

Purposeful sampling techniques were used to identify participants who had knowledge about the phenomena being studied. Eligible participants included all women between the ages of 18-40 who experienced at least one gestational period while working in the Midwest stream. Once study participants verbally volunteered to participate in the study I provided them an informed consent form to read and sign (see Appendix E). The informed consent forms were in both English and Spanish as all of the migrant women farmworkers I interviewed were of Hispanic descent with little to no English language skills. During this period I also offered to read the informed consent form to study participants; however, no one requested I read the form to them.

Additionally, at this time I told each study participant at the end of the interview they would receive $10.00 for their time. One woman refused to take the monetary reward stating "You are here to help us; I am not taking your money." Study participants were also informed that no identifying information pertaining to their name or location was kept. I explained that I would use a pseudonym or number to identify them in my study.

All participants who agreed to participate (n = 15) received a copy of the consent form. On the consent forms was also a section that provided each woman with a contact number to speak with a mental health professional if they experienced any uncomfortable or stressful feelings after the interview. The crisis line number provided was confidential and has both Spanish and English speaking counselors to provide adequate services in a language that is most comfortable for the study participant. I also provided the phone number for the local migrant health care unit in the region closest to their migrant camp.

I conducted the majority of interviews in Spanish (n = 13) in which I am fluent and the other two interviews in English. Most interviews were conducted on Sunday afternoons (n = 11), which is typically the only day off for migrant farmworkers. The other interviews were completed late one Saturday evening after the women finished work (n = 4). All interviews were face-to-face, in-depth, open-ended interviews. Each interview was guided by a structured interview worksheet to aide in consistency between all study participants (see Appendix D). The proposed sample size to understand how migrant women farmworkers manage reproductive health and gestation while in the fields was 15 participants. This provided a large enough sample size to answer the proposed research questions and I reached saturation with 15; no new information was being obtained from the interviews.

Each interview was audio recorded and expected to last 45 minutes to an hour. The average length of interviews was 25 minutes. All interviews were conducted inside the study participant's house. I originally was going to use a room provided by each farm owner; however, the women felt more comfortable conducting the interviews in their

home. At times during the interviews I used probes and follow-up questions to draw out a richer detailed explanation. With permission from participants, I used my personal laptop with an external microphone to capture their answers during the interview for accuracy.

Field notes were also taken at the end of each day to capture participant's nonverbal reactions and my overall perceptions during fieldwork. Each audio recording was then transcribed verbatim and saved in a word document. During transcription I added reflective notes as I listened and transcribed the interviews. All audio recordings, transcripts of audio recordings, and field notes were uploaded to NVivo10 for Mac for data management.

Coding Analysis

I utilized the qualitative research software NVivo10 for Mac by QSR International. I translated the audio files, which were in Spanish to Spanish in a word document. Then I transcribed the Spanish transcriptions to English and saved them in a word file. I read each transcription a minimum of three times for coding and identification of common themes. Initially, I identified participant's responses to each interview question, then in a boarder sense in relation to the three research questions.

Next, I coded each transcript using an inductive coding approach. Inductive coding allows the researcher to tease out frequent or significant themes from raw data (Thomas, 2006). Thomas (2006) identified a five-step process for using inductive coding:

1. Prepare the raw data files, also called data cleaning. Where the researcher formats the data files in a similar format.
2. The researcher reads the text with close detail until they are familiar with the content.
3. Create categories.
4. Overlapping codes or uncoding text as needed.
5. Continued with refinement of the categories and within each category search for subcategories.

The initial coding categories changed several times after reviewing the data. Once a new code was identified or deleted I went back to each transcript to re-read the data and make the necessary changes. I organized subcategories under each of the three main research questions. The subcategories allowed me to differentiate between each participant's responses about how they managed maternal health.

Research Findings

The following section presents the study findings. The section is divided into three sections. The first section displays basic demographic information, such as age, marital status, number of children, and number of years working in the agricultural fields. This is followed by an examination of what the participants believed was normal prenatal care. The last section answers the three research questions. The themes gathered identified from reviewing the transcripts are interwoven throughout the findings to provide richer detail and validation for the themes. All the responses are direct quotes from the participant's perspective.

Demographic Data

The first seven questions of the interview guide captured basic demographic information from each participant. A total of 15 women participated in the face-to-face open-ended interviews. In terms of the demographic information I was careful to not collect any data that would potentially identify the participants to protect their confidentiality. Additionally, I purposefully did not ask the participants about their citizenship or the legality of their work status at the farms they worked.

All 15 women were of Hispanic descent and 14 of the women were born in Mexico (see Table 2). Participant's ages ranged from 22 to 40 years of age with a mean age of 30.5. The majority of the migrant farmworkers reported their marital status as married (n = 10; see Table 2). Participant's level of education ranged from no formal education (n = 1) to completion of high school (n = 8; see Table 2). Number of children ranged from one to five children and 20% (n = 3) reporting they lost a child during pregnancy (see Table 2). The last demographic question I asked was how many years they had worked in the fields; the range was from one year to twenty years of laboring in the agricultural fields (see Table 2).

Themes

As I read and reread transcripts I had to continually think about how my own beliefs about migrant farmworkers health and maternal care might influence the interpretations I was making about the data. Therefore, each interview was carefully

Table 2

Demographic Characteristic of Participants

#/PSEUD	AGE	NAL	EDU. LEVEL	MS	# CHN	#CHN LOST	# YRS IN FIELDS
1 Elisa	26	Mexico	10	M	2	0	10
2 Maria	22	Mexico	12	S	2	0	5
3 Lilia	29	Mexico	5	M	2	0	14
4 Alejandra	39	Mexico	0	S	2	0	16
5 Rosa	23	US	12	M	3	0	1
6 Yolanda	37	Mexico	12	M	5	1	20
7 Patricia	35	Mexico	12	M	1	0	12
8 Juana	23	Mexico	10	M	3	0	6
9 Silvia	24	Mexico	12	S	3	0	9
10 Martha	40	Mexico	11	M	4	1	19
11 Adriana	25	Mexico	12	M	4	0	5
12 Leticia	32	Mexico	12	D	2	0	5
13 Veronica	27	Mexico	12	S	3	0	4
14 Margarita	40	Mexico	9	M	2	0	20
15 Gabriela	36	Mexico	9	M	2	1	20

analyzed in relation to each question, looking for consistencies between them. The following section describes participant responses and the common themes identified from the raw data. An interpretation of the data based on the research questions and themes is provided in chapter five.

Research Questions

Research Question 1:

The data collected from the 15 interviews answered the following three research questions. The first research question was: What are the perceptions and attitudes of women migrant farmworkers in northern Ohio regarding perinatal care management while following the crops?

In order to answer this research question, I asked a series of open-ended interview questions from the interview guide (see Appendix D: –IQ8–IQ16). To determine a baseline of what migrant women farmworkers beliefs are about prenatal care, I asked them what they perceived as normal prenatal care.

Normal Prenatal Care

In the beginning of each interview I asked all the participants how they describe normal prenatal care. All 15 of the women interviewed had some knowledge of what westernized medicine considers normal prenatal care. The responses varied from a vague definition such as "take care no more" to the importance of resting, taking prenatal vitamins, and going to regularly scheduled appointments with a health care provider.

Alejandra: Take care no more.

Lilia: It's like take pills, no work, drinks lots of water, and so on.

Rosa: Taking the pill [prenatal vitamins] and eating more.

Juana: Go to the doctor for appointments after the 3 months or so.

Prenatal Care While Working

After understanding how the women described what their definition of normal prenatal care was I asked them how their definition changed when working in the fields. Eighty-seven percent of the women stated they are not able to maintain what they perceived as normal prenatal care while working in the fields.

Elisa: Yes it is very difficult because we work in the fields.

Leticia: Sometimes because of work you know you need to go but you cannot go.

Margarita: It changes drastically because you cannot rest.

The other two respondents stated they stopped working at the end of the first trimester or shortly thereafter; therefore, they stated they didn't find it difficult to maintain their normal prenatal care practices.

> Adriana: Well this is my first baby I was working in the camp but I was only 34 months and took off to Texas and wasn't working, and I was not working in Texas.

Commencement of Prenatal Care

One aspect of maintaining prenatal care while working in the fields that varied was when they started prenatal care. When discussing prenatal care while working I asked all of the participants when they began prenatal care. It was difficult for many of the women to remember exactly when they started prenatal care and how often they were able to attend appointments but they all provided answers to when they thought they began. Answers varied among the women with some beginning prenatal care at one month of gestation and others beginning at four or five months of gestation. Only two participants stated they began their prenatal care between one to two months of gestation.

> Martha: Two months after I started.
>
> Leticia: Right after I knew I was pregnant I started, about one month.

The majority of women (n = 10) stated they started prenatal care some time during beginning of the second trimester when they were about three months pregnant.

> Maria: We start going after the first three months of pregnancy.
>
> Alejandra: When I was three months pregnant with my second baby I went to the clinic. I had an appointment and went and was checked.

The other three women stated they began their prenatal care during the fourth or fifth month of pregnancy.

> Lilia: You go to the doctor every month and then like three or four months then as the belly grows each twenty to 15 days…I started at 4 or 5 months.
>
> Silvia: I went to the gynecologist each month or every two months, I think [started prenatal care] once I had 4 months.

Maintaining Prenatal Care

A follow up question I asked the women included how often they attended their prenatal care appointments and what made it difficult to maintain prenatal care while working. Some common themes included long workdays, lost wages, and a lack of time.

Long workdays. The women work 12–13-hour days with few breaks during the workday. All 15 of the women mentioned the extremely long workdays and the lack of a fixed schedule as a barrier to receiving prenatal care. They always start at the same time in the morning, but there is no set time for stopping. They work until they are told to stop working by the field manager. They also discussed having to work through the holidays as a burden. A typical workday for the women begins around 7:00AM- 7:00PM Monday thru Friday and Saturdays from 7 AM to 12:00 PM. Additionally, the women are tasked with working on Sundays when the crops need tending too.

> Maria: We wake at 5:30 AM to prepare the food for the day that we take to work and we return at 7 or 7:30PM at night or sometimes later.

Yolanda: It's hard, it's, I mean, there's no school so they {the children} get days off and they'll just stay at home but there's no day's off for us and we work Saturday and Sunday too sometimes.

Lost wages. Not getting paid was also a barrier to maintaining prenatal care that was mentioned several times (n = 5). The migrant women stated in order to attended prenatal appointments they would have to take a day off and thus lose a days' wages. Migrant women farmworkers are paid by piecemeal rate. Meaning, if they miss a day of work they do not get paid; they are paid per unit of work performed.

Lilia: If I need to go I have to ask permission to miss an entire day.

Yolanda: Yeah, you don't get paid. So there's no like, sick days that they'll pay you or like, you miss it and they'll, you know we don't have any type of benefits that so….

Although I did not specifically ask the women about income, several reported they make approximately $100.00 per week and they rely on each day's pay to provide for their families.

Lack of time. Likewise, all 15 of the women discussed how it was difficult to find time to take proper care of themselves during gestation due to their schedules.

Yolanda: It's just like; it's hard for us to work while we're pregnant. It's just the difficulty taking care of yourself, eating right and all that. That's the difficult part, not the medical attention.

Leticia: Sometimes because of work you know you need to go but you cannot go.

One participant even went on to discuss how she would like to have another child but due to the long work days and lack of time she would not have another child.

> Elisa: I would not have another baby; I want other baby but do not want to go through it, being pregnant and working. I know I want to plan the next one, work first and when I am pregnant rest, not work.

Reproductive Care

The next question I asked participants was there perceptions of the maternal care they received while in Northern Ohio. Overall, the majority of participants (*n* = 13) stated the care they received from medical providers was good.

> Silvia: Good.
>
> Martha: The service I have received at the clinic here has always been really good people, they help.
>
> Veronica: At the clinic in town it is good, they treat me good.

The two other participants stated they have not been to the clinic for maternal care therefore they could not answer the question. However, one of the two women stated she asks for medications from her doctor in Texas instead of going to the clinic while in Ohio.

> Patricia: Truth is I have never been to the clinic here. I ask for medications from Texas. Well really I thank God I have not had a disease, which has to go to the doctor…

Barriers to Receiving Prenatal Care

Although 87% of the women believed the medical care they received in Ohio was good when asked if they experienced any barriers to the medical care they received, two-thirds responded with yes. The migrant women farmworkers stated several barriers to receiving prenatal care while in Northern Ohio such as language, transportation, lost wages, a lack of insurance, and access to clinics.

Language barrier. The biggest challenge the migrant women farmworkers stated regarding receiving maternal care in Northern Ohio was the language barrier. All the women were of Hispanic descent and 87% lacked English language skills. Spanish is the primary language for the women; however, all of the medical providers in the area speak English.

Maria: I didn't understand the doctor.

Lilia: Here it is a problem; the doctors do not speak Spanish.

Adriana: No clinics for immigrant woman.

Therefore, in order to receive maternal care from providers in Ohio migrant women are responsible for arranging and paying for a Spanish language interpreter in order to communicate with the doctor during their appointments.

Elisa: When I moved here, Ohio, it was difficult because there are no interpreters for us who speak Spanish. And I needed a doctor to give birth.

Maria: You have to look for someone to interpret and pay them to come with me because I didn't understand the doctor.

Transportation. A lack of transportation to the clinic was also mentioned as a barrier to receiving care. Many of the migrant women do not drive or do not have access to a car (*n* = 13). Therefore, they have to rely on their spouse, a neighbor, or another family member to drive them to appointments. The prenatal care providers are approximately thirty to forty minutes away from the migrant camp therefore the women had to take an entire day off of work to attend appointments. Sometimes, their spouse or partner had to take the day off too to provide transportation.

> Lilia: The one problem is the clinic is far away, my husband takes me, it takes about 40 minutes to get there. I do not remember what town it is in but it is far away.
>
> Alejandra: I cannot buy a car and lots of money. If I buy a car is it very expensive. Sometimes I ask for a ride with my sister. My sister knows how to drive.

Additionally, one participant stated sometimes when she would arrive at the clinic forty miles away for her appointment, the clinic would be closed and she would have to turn around and go back another day.

> Alejandra: At times they say you have to have an appointment and you go, they say must come that day and when you go sometimes when you arrive it is closed. It is not open and is already closed and for this you have to return again.

Fee for services. Another barrier to receiving prenatal care while in Northern Ohio was a lack of insurance and difficulty having to pay for services. The state of Ohio does not provide Medicaid or financial assistance for migrant workers during their tenure

in the state. Therefore, if they do not have insurance they have to pay out of pocket for services.

> Juana: In Florida I have Medicaid but here no. I do not have insurance so I have to pay.

One of the Farms, Farm C, has a federally funded migrant clinic on-site; however, the clinic does not offer maternal care and it is only open one day a week from 8:00 AM to 4:00 PM. The migrant clinic is free to all the migrant workers at Farm C. It was mentioned by several women the clinic was only good for minor illnesses, like a runny nose or cough. Anything more serious you would need to go to the local clinic or hospital.

> Yolanda: {The clinic} but it's just every Wednesday there's a doctor available for us, for all the field workers. And so every Wednesday if we have any problem or we need to see a doctor they don't charge us at all there. They go by our income, so as a family 'cause we're size of seven they don't, they don't charge us. It's free.
>
> Margarita: But this clinic (Farm C) doesn't do maternal health you have to go to another clinic in town.
>
> Alejandra: There is a clinic here (Farm C) but it is not for woman who are pregnant. It is for when you have a cold.

One participant stated she preferred not to use the free clinic at all, believing it was better to go to the hospital for care.

Juana: Here yes, I do not going to the clinic, I go to the hospital…{ME} why not the clinic? Well I do not know. It makes me, as in the clinic are only a few days no, well, no, it's better go to the hospital.

Migration

As a result of the numerous barriers to receiving maternal care in Northern Ohio; two thirds (n = 10) of the women stated they planned their pregnancies around their migration to Northern Ohio to avoid having to use the health care system for delivery. Two thirds of the women stated they planned their pregnancies so they could give birth in Florida (n = 4) or Texas (n = 6) for two reasons: a) they can find medical providers that speak Spanish and b) both states offer free community-based health care for community members regardless of their ability to pay or residency status. In both of these states the migrant women are eligible for health care upon their return after the harvest in Ohio. Not having to worry about health care costs for delivery takes a large burden off of the women and their families.

Lilia: I was pregnant here but then went to Florida to give birth.

Alejandra: Both of my children were born in Florida.

Juana: In Florida I have Medicaid but here no. I do not have insurance so I have to pay.

Complications with Delivery

The last interview question I asked in relation to receiving medical care was how their delivery went, did they have any complications during delivery. Forty-seven percent of the migrant women interviewed (n = 7) stated they had at least one cesarean

section. The first migrant women stated she worked till the end of her pregnancy and that is why she had a cesarean delivery.

> Alejandra: I still worked because my daughter does not have a papa and I was single so I worked. For this I struggled a lot because she didn't have a papa so I worked. When she was born I worked until they cut my belly, I had a cesarean section.

Another woman stated she had a cesarean delivery because the baby was breech. She didn't know if the baby was breech because of working in the fields or not, but she thought her work might have something to do with the complicated birth.

> Martha: I took work when I was pregnancy because almost never, very seldom said I cannot work. When I had aches and nausea I almost never gave up. Then, I don't know if it was the work or not but she {baby} grew sitting {breech} so I had to have a cesarean. I don't know if it was because of the work or not but she was sitting {breech} so they had to do a cesarean.

One woman stated she had to have a cesarean delivery because she worked until the day before giving birth and she didn't have the strength to push. Yolanda stated she had multiple cesarean deliveries and has been working in the fields for twenty years. She stated she worked to the day of delivery for every pregnancy because she needed the money.

> Yolanda: I worked the entire pregnancy, mostly, and it was hard. And so all the strength, you would leave all the strength on the fields, there's no strength to push, there's no strength to breath it out, nothing, it's like the only option I had

was a cesarean, I was so weak, I couldn't, I couldn't do nothing really, like that was like the last option. So it does affect because of our work is not the same as a pregnant lady not working, taking care of like being at home, you know, getting their rest, getting their sleep, getting their healthy foods and snacks and all that. All that we can get outside is just work, work, work, we can't really…

The last two cesarean births were believed to be a result of low amniotic fluid and preeclampsia respectively. The women did not use the technical terms for the birthing complications but I deduced from their descriptions what they were referring to.

Adriana: My first baby and my second baby were high-risk pregnancy 'cause they would come before time… my second girl was premature… It was just 'cause there wasn't enough liquids in the water bag. She was cut out {cesarean} I think seven months and a half, thirty-four weeks really, but she didn't have no complications.

Gabriela: My pregnancy was cut a bit short. I suffered high BP with my girls so I had to go to the doctor more. Sometimes I would have to stay in the hospital for a day. I had to have a cesarean.

Postnatal Care

In addition to prenatal care, part of maternal care management is postnatal care. Therefore, I asked each of the women if the attended postnatal care and how often. Only three participants stated they attended postnatal care.

Gabriela: After pregnancy I went eight days after birth and then I did not go back.

Maria: I think after forty days I had to return to the doctor (after giving birth).

Patricia: I don't know, one or two appointments.

Lastly, I asked the women how long they were off from work after giving birth. The responses varied among the women with the least amount of time off from work being seven to ten days up to one year (see Table 3).

Yolanda: Mostly I'll just stay like rest and be on bed, and be like seven or ten days. The most is two weeks, and that's about it. On the third week I am working.

Alejandra: He {father} left and after his brother in Florida said that he had died, that is what he said. For this I suffer a lot with here. I left my job and my mom and daughter helped a lot... helped me pay rent. For this I did not go to work. It was almost 1 year that I stayed in the house with her.

Although I asked all 15 women about attending postnatal appointments, only four participants answered the question. Two participants stated they attended one postnatal appointment at a hospital, one stated she has postnatal care from friends, and the fourth participant stated she didn't attend any appointments.

Maria: I think after forty days I had to return to the doctor.

Gabriela: After birth I went to appointment after first few months.

Elisa: Friends would tell me how to care for the baby or change it.

Childcare

I then asked the women what the hardest thing was about returning to work. All 15 of the women responded with similar answers including they wanted to spend time

with their new baby and they worried about leaving their baby with a childcare provider, whether it is a neighbor, family member, or at a daycare center.

Maria: When I returned to work I was very worried, worried whether he was being taken care of good or bad. I stayed worried.

Rosa: Mostly ‘cause when you have a little baby you don’t want to go back to work, you just want to be with the baby.

Childcare is an important and at times stressful part of the migrant women’s day as the women work 12–13-hour Monday – Friday and half a day on Saturdays and sometimes Sundays during the harvest season. I learned from the participants that the smaller children under one year of age up to five years of age typically go to a head start program for migrant children funded by the federal government called the Texas Migrant Council (T.M.C.). T.M.C. operates Monday – Friday 8:00 AM to 4:00 PM and a school bus comes to the migrant camp to pick-up the children in the AM and brings them back after school. As the mothers are typically still working at the time the bus brings the children back a neighbor, older sibling or babysitter takes care of the children until the mother returns after working. The children five and older attend a local public school and either go to a sitter after school or are old enough to stay by themselves until their mother returns (see Table 3).

Rosa: And after that there’s a lady that takes care of him.

Adriana: It, the Texas Migrant Council. It helps camps, the families of the workers.

From eight till three he goes to a T.M.C., to like a day care, little school day care.

Veronica: My neighbor watches the children.

Margarita: Right now my child goes to school and a sitter after school until I get home.

Table 3

Time Off of Work and Current Child Care Provider

#/pseud	Maternity leave	Child care provider
1 Elisa	2 months	TMC / babysitter
2 Maria	2 months	TMC / babysitter
3 Lilia	5 or 6 months	TMC / babysitter
4 Alejandra	1 year	TMC / babysitter
5 Rosa	1 month	TMC / babysitter
6 Yolanda	7 – 10 days	School/babysitter
7 Patricia	4 months	School
8 Juana	4 or 5 months	TMC/ babysitter
9 Silvia	2 months	TMC / babysitter
10 Martha	2 months	School / babysitter
11 Adriana	3 months	TMC / babysitter
12 Leticia	4 or 5 months	School / older sibling
13 Veronica	6 months	TMC / babysitter
14 Margarita	3 months	School / babysitter
15 Gabriela	3 months	TMC / babysitter

Research Question 2:

The second research question explored the type of work migrant women farmworkers participate in during gestation. The first question I asked was to describe what a typical day is like in the fields when you are not in gestation.

Typical work day. As discussed previously, the women work in the fields 12–13-hours per day. Waking early in the morning to prepare lunch for the day and prepare the children for school before heading to the fields.

> Maria: A typical day for a migrant women farmworker is to wake up early around 5 or 5:30 AM to make breakfast and lunch for the day, get the children ready for school, and be to work by 7 or 7:30 AM. A typical workday is 12–13-hour Monday thru Friday and Saturdays they work from 7 AM to 12:00 PM.
>
> We wake at 5:30 AM to prepare the food for the day that we take to work and we return at 7 or 7:30 PM at night or sometimes later.

The women are permitted to take two fifteen-minute breaks and one thirty-minute lunch break every day. The two breaks are split between one fifteen-minute break in the morning and one in the afternoon.

> Alejandra: They give you a break in the morning, at lunch, and in the afternoon.

In addition to long workdays, the work the migrant women perform is strenuous and laborious. The women are up and down on their knees all day, exposed to the elements. One woman discussed how the first few days of the season are extremely difficult because your knees hurt. But after a few days you get used to it, mentioning her knees get "molded."

> Yolanda: … and so we get there and we get off we start working until twelve, until we got lunch… it's just on our knees… It's pretty simple, we've got already, how do you say, our knees molded… First days, first days it's horrible 'cause we were, we're like you can't really get up and sit down. And but like once after a week or two we're used to it. Then time flies by the time you know, I mean, its lunch. We take the half hour lunch, we go back like in and then we just wait until they are like complete.

Typical work day during gestation. I then asked the migrant women how their definition of a typical day changes for a woman in gestation. Does the work load change or working conditions change during gestation? Ninety-three percent (*n*=14) of the women stated the work does not change for women who are in gestation. The women stated regardless of pregnancy status women are treated exactly the same and do the same work. They do not take additionally breaks during the day, and they work the same amount of hours.

> Maria: When you are a worker, even if you are pregnant, you are just another worker, that is they don't treat you any differently.
>
> Elisa: Yes this is very difficult because we work in the fields, and with the strawberries we have to squat all day and with a big stomach it hurts. And then we have carry boxes of strawberries and yes it is difficult.

Only one participant stated you could ask to change jobs if you are pregnant, a job where the work is a little bit easier. However, this respondent mentioned a packing department and not all of the farms have separate packing departments.

> Gabriela: Pregnant women have an option of asking to work in the packing department. The work is a little bit lighter, lighter where they are standing without a lot of force.

Evenings after workday. In addition to the formal workday, I asked migrant women farmworkers what a typical evening is like once they return from the fields. All 15 participants stated similar responses to the work they performed after working all day in the fields. Upon return from the fields, they have to take care of the children, cook,

clean, bathe the children, and prepare for the next workday. These chores do not change if a woman is pregnant or not, they do the same chores, offering little to no time to rest.

> Leticia: Sigh… once I arrive I have to bathe the kids, prepare dinner and there is no time to rest.
>
> Margarita: Here is no evening. The evenings are very fast. I have to bath the children, prepare dinner, prepare lunch, iron, etc. That is what I do.

The only day migrant women farmworkers have off are Sundays. However, they stated that Sundays are not really a day of off; Sundays are used for household chores. The migrant camps do not have laundry facilities on-site; therefore, on Sundays the women have to take the laundry to the laundromat in a nearby town. Additionally, the women use this day to shop at the supermarket for the weeks food supply and if time permits, for rest.

> Elisa: On the weekends we work Saturdays, about four hours, no more but we have other things to do, go to the laundromat, buy food from the supermarket, etc. Each weekend is the same.
>
> Silvia: We work every day except Sunday.
>
> Leticia: Sundays I wake up with the children, prepare lunch, clean the house, wash the clothes, because that is the only day I can wash clothes.

The migrant women stated they even work all of the holidays. Holidays are not a day free for them.

> Silvia: We work all the holidays. When there are holidays I wish the boss would let us have a day of rest but no we have to work all those days.

Working through the third trimester. When I asked the women how long they worked during their pregnancy only four women stated they worked through the third trimester, the rest of the women stopped working at the end of their second trimester (*n* = 6) or shortly thereafter (*n* = 5). All four of the women who worked their entire pregnancy stated they worked in the fields until the day before delivery. They discussed feeling extremely fatigued and the discomfort of having to work with a big belly but continued to work six days a week until going in to labor.

> Rosa: It was really hard 'cause that's when you get bigger, so you can't bend your knees, bending over, you want to be walking but, you can't.
>
> Patricia: It is more difficult, you are much more tired because you are kneeling and the bathrooms per policy are not supposed to be far from the product, so I have to go for a walk to the bathroom and pregnant women have fatigue. And the discomfort, with pregnancy comes the discomfort.
>
> Veronica: It was difficult, the work is very heavy.

Research Question 3:

The final research question explored what conditions of farmwork they believed to be harmful to a developing fetus. The first interview question from the guide asked the women if they avoided certain types of work when they were in gestation. Based on the data the only type of farmwork the migrant women considered dangerous was the application of chemicals to the fields. Eighty-six percent (*n* = 13) of the women mentioned pesticides or other chemicals used for fertilization as the only condition of their work that was potentially harmful to a developing fetus. The women stated when

chemicals were going to be applied they would be notified prior to application and have the option of coming in later, working in a different field, or not working that day at all.

> Margarita: The only thing that I think is harmful is the pesticides. It is good that they advise us when they are going to use them.
>
> Leticia: I don't think outside is bad, no more that advise us when they are going to use pesticides. I think that is the only thing, if a woman was pregnant they would let her know and have her come later or not at all. I think this is it. It is the only dangerous thing.

Although thirteen of the women believed pesticides to be dangerous, three of them believed the pesticides they used at their respective farms were not that strong. Meaning, they didn't have to worry too much about coming in contact with them.

> Silvia: The pesticides they use here are not that bad.

Two participants stated they didn't believe anything they did while working in the field was potentially harmful to the fetus.

> Rosa: None, nothing is bad.

Of the 13 participants stating they believed chemicals to be dangerous, I asked them if they took any special precautions for working around the chemicals. All thirteen reported wearing gloves, with seven of those women reporting they added additional protective clothing such as long sleeves and masks. Additionally, two participants stated they wear protective clothing to protect themselves from the sun and dirt. Only one of the three farms (Farm B) provided protective equipment such as gloves, masks, and rain

suits for the workers. At the other two farms the migrant workers were responsible for providing their own personal protective equipment.

> Veronica: I wore gloves, pants, long sleeves, and shoes.
>
> Yolanda: Yeah, gloves, I put a hat, I put long sleeve, I try to avoid like the whole dirt. I mean you get dirty, like your clothes dirty, I mean we try not to get our face, our hands, we cover up, like when we eat we have to wash our hands. We cover up ourselves pretty good, and not because it's cold.

I also asked the migrant women if during gestation they ever felt their jobs were in jeopardy. All of the women stated they liked their employer and didn't feel their jobs were in jeopardy because of gestation, stating it was up to them if they worked or not. However, several women (n = 4) stated they were not permitted to miss several days per week if they wanted to stay employed.

> Yolanda: I worked the entire pregnancy, mostly, and it was hard… That was like up to me. They don't tell you like, either, how do you say, like they don't force you to work or anything, but like at the same time they get mad at you if you miss certain days.
>
> Silvia: Yes, i can, work or not work that is my decision, but work more slowly.

Evidence of Quality

As previously discussed for this study to be credible and to make a contribution to the existing literature in the field of maternal health among migrant women farmworkers it was dependent on the quality of the data collected, data analysis, and verification of findings. The goal of phenomenological research focuses on experiences in everyday life

(Dalbye, Calais, & Berg, 2011). Therefore, in order to ensure this study was credible, confirmable, and dependable certain procedures were strictly adhered to throughout data collection and data analysis.

Process for Credibility

The credibility of this study was verified through data triangulation of the sources for data collection. Data triangulation involves using different sources to increase the credibility of a study (Patton, 2002). This process involved using different participants from multiple farms in Northern Ohio and several quotes from the participants to support findings.

Process for Confirmability

To ensure confirmability in this study I used rich descriptions from the study participants and reflexivity. This study includes verbatim transcriptions of each interview to provide contextual and detail rich data. Notes were taken during the interview on the interview guide and during data analysis, highlighting themes as they emerged. Direct quotes provided a rich detailed description of the data from the participant's perspective. Reflexivity also required a conscious self-reflection occurred when the results were analyzed.

Process for Dependability

The procedure to ensure dependability was confirmed through the use of an audio recording device with an external microphone to capture verbatim what each study participant stated during the interview. The use of an audio recorder produced a more reliable account of the data collected and created a permanent recording of the interview

that I can go back to at any time. Audio recording also eliminated the dependence of recall basis after the interview. Permission to audio record each interview was granted from each participant when they signed the informed consent form prior to beginning the interview.

Summary

The purpose of this study was to examine the beliefs and influences that guide migrant women farmworkers' views perinatal care management while working in the fields in Northern Ohio. Chapter 4 provided an overview of the processes used to collect, manage, and analyze data collected from migrant women farmworkers in Northern Ohio regarding their perceptions of maternal care management. Participants were selected based on purposeful sampling techniques and all participants were informed of their rights and signed informed consent forms prior to beginning the interview process.

Responses from in-depth interviews examined how migrant women farmworkers manage reproductive health during their migration to Ohio for work. The first research question explored the migrant women's perceptions of what they believe to be normal prenatal care and how this definition changes when working in the fields. All of the migrant women farmworkers had a basic understanding of what prenatal care was. However, they experienced several barriers to receiving prenatal care while working such as language, transportation issues, and having to pay for services. Additionally, some of the women discussed planning their pregnancy around their migration to Ohio and the complications some of the women had during delivery.

The second research question looked at what a typical workday is like for migrant women farmworkers and how this changes when in gestation. The majority of women stated nothing changes for a woman in gestation, they continue to do the same work. This question also examined what a typical evening is like and a typical day off. Migrant women have very little free time to care for self-care or rest. Their evenings and one day off are fully occupied with household chores and caring for their family.

The third research question explored what conditions of farmwork women in gestation consider harmful. The majority of the women identified chemicals as the only potentially dangerous aspect of their work. They discussed wearing gloves or other protective clothing as a means to not cause harm to their unborn child.

The last section in this chapter identified evidence of quality. The first measure to ensure quality was a process for credibility. To ensure credibility I used data triangulation. The second process to ensure quality was confirmability. For this measure I used rich descriptions from the study participants and reflexivity. The third measure used to ensure quality was dependability. To ensure dependability in my study I used audio recording techniques to capture verbatim what each study participant stated during the interview. Chapter 5 offers an interpretation of the study findings, limitations of the study, recommendations, social change implications, and researcher's experience.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to examine the beliefs and influences that guide migrant women farmworkers' views of perinatal care management while working in the fields in Northern Ohio. The infant mortality rate among migrant farmworkers is estimated to be twice the national average. Previous studies have identified migrant women as being one of the most marginalized groups in the United States who experience barriers to accessing perinatal care. One method to reduce the likelihood of adverse pregnancy outcomes is perinatal care. Understanding migrant women's perceptions of reproductive health and gestation are critical in reducing mortality and morbidity rates for this population.

This study was based on the following research questions:

Research Question 1: What are the perceptions and attitudes of women migrant farmworkers in Northern Ohio regarding perinatal care management while following the crops?

Research Question 2: What type of work do women migrant farmworkers participate in during gestation in Northern Ohio?

Research Question 3: What conditions of farm work do women migrant farmworkers in gestation consider harmful to the fetus? Are they allowed to refuse certain types of work that may jeopardize the fetus? If so, what are

their perceptions of continued employment if they refuse? And are they assigned to different types of work than females not in gestation?

To answer these research questions I used a phenomenological approach with in-depth, face-to-face interviews with 15 migrant women farmworkers in Northern Ohio. Phenomenological studies attempt to understand or portray individuals' common meaning of their lived experiences of a concept or phenomenon using in-depth interviews (Finlay, 2009; Giorgi, 2008; Moustakas, 1994; Starks & Trinidad, 2007). Phenomenology adds to a fuller understanding of lived experiences by focusing on perceptions of beliefs, which may be taken for granted as common knowledge (Finlay, 2009; Giorgi, 2008; Moustakas, 1994; Starks & Trinidad, 2007). The interviews were audio-recorded to ensure accuracy and in the verbatim transcription. I used NVivo10 for data management on a password-protected computer. To analyze the content of the data I used an inductive coding approach. Inductive coding allowed me to tease out frequent or significant themes from raw data (Thomas, 2006).

In this chapter I will interpret the findings based on the themes identified in Chapter 4. This is followed by a discussion of the findings in relation to the conceptual framework used to guide the study. Lastly, I identify the limitations of the study, recommendations for further research, social change implications, and personal reflections while conducting the study.

Interpretation of Findings

Demographic

All of the women provided a brief overview of their life by answering several demographical questions including age, marital status, education level, number of children, and years working in the fields (see Table 1). Over half of the women (n = 8) reported they finished secondary school. The seven women who did not finish secondary school ranged from no formal education to completion of the eleventh grade. The average education level among the participants was the tenth grade. This is similar to findings by the National Center for Farmworker Health (NCFH, 2012), where the average educational level for migrant farmworkers is the eighth grade. The women offered two reasons for not completing secondary school (a) migratory lifestyle and (b) a need to earn money.

Housing

All of the women resided in one of three migrant camps. Farm A was the only migrant camp to have single-family housing. The other two farms housed multiple families in one unit. Farm B had a five-person per house ratio and Farm C was seven-people per house ratio. In both Farm B and C two families occupied each unit, with one family in each bedroom. Based on the demographic data collected the average family consisted of two adults and 2.3 children; thus 4.3 people per bedroom. Multiple families sharing a single unit in migrant housing is a common practice. For example, a study conducted in North Carolina found almost half of all migrant camps had three or more people per bedroom (Vallejos et al., 2010).

Housing conditions at both Farms B and C were standard at best, as not all units had indoor bathroom facilities and they lacked some basic amenities such as laundry facilities. Although, each participant stated they have lived in much worse conditions; therefore, they didn't see these specific camps as being substandard. Substandard housing conditions are a concern among migrant camps across the United States (Arcury et al., 2012; Farquhar et al., 2009; Vallejos et al., 2011; Villarejo, 2003). A study conducted in North Carolina found 89% of the migrant houses had at least one condition that violated housing regulations (Vallejos et al., 2010).

Overcrowding and substandard housing conditions at migrant camps has been identified as a health and safety hazard for all family members (Abbet, Wilkerson, & Buxbaum, 2005). The home environment is an important determinant in the health of the mother and child. In Brazil, women living in substandard housing were more likely to have a low-birth weight infant or preterm infant (Vettore, Gama, Lamarca, Schilithz, & Leal, 2010). Similarly, in North Carolina researchers found poor housing conditions were related to adverse pregnancy outcomes (Miranda, Messer, & Kroeger, 2012).

Because of the close living quarters, the interpersonal and organizational relationships were strong among the participants. This sense of closeness was evident as an outsider and throughout the interview process. Each migrant camp was essentially a small community and health related behaviors were consistent within the camps, inferring the strong influence from the community level of the SEM.

Research Question 1

Prenatal Care

Based on the analysis of the in-depth interviews, migrant women farmworkers have a basic understanding of prenatal care and the importance of taking care of oneself to ensure healthy pregnancy outcomes for both mother and child. All of the participants discussed intrapersonal constructs regarding prenatal care and during the initial stages of the interview the varying levels of health literacy regarding prenatal care was evident. The responses ranged from "take care, no more" to one respondent discussing her appointments with her gynecologist, and another discussing the importance of eating well and getting plenty of rest. Nevertheless, the majority of migrant women farmworkers were not able to maintain what they perceived as normal prenatal care while working in the fields in Northern Ohio.

According to the CDC (2013) early enrollment in prenatal care and proper weight gain can reduce the risks of poor birth outcomes. Beginning prenatal care prior to gestation or soon thereafter is viewed as a necessity and a preventive public health intervention to reduce maternal mortality and morbidity (Alexander & Kotelchuck, 2001; CDC, 2013). Despite the importance of prenatal care early on, only 13% of the women in this study began prenatal care during the first trimester, 66% began at the beginning of the second trimester, and the other 20% during the middle to end of the second trimester. Similarly, Quelopana et al. (2009) found that only 35% of Hispanic women began prenatal care during the first trimester; and in California only 42% of migrant women farmworkers began prenatal care during the first trimester (NCFH, 2012).

Occupational Barriers

There were several occupational barriers that impeded the women from receiving prenatal care. The first theme was their long workdays. All of the women reported having to work 12–13-hour per day five days a week and half a day on Saturdays. During the busy season they are tasked with working Sundays as well. This is consistent with the nature of migrant farmwork in the United States (Anthony et al., 2010). Working hours per day during the weekdays left no time for the women to attend prenatal care appointments and the only time clinics were open was 8 AM to 4:30 PM, Monday – Friday. Therefore, if the women decided to attend prenatal care appointments they had to take a day off from work, resulting in lost wages.

Losing an entire days' worth of wages was a concern for just over a third of the respondents. In order to attend prenatal care appointments the women had to miss the entire day; thus, making them decide between attending prenatal care appointments or working to earn money. The women only earn about $100.00 per week therefore losing a days' wages was a substantial factor in deciding whether to get care.

The last theme identified as a barrier to receiving prenatal care was a lack of time. All of the women discussed a lack of time to care for oneself as a barrier. The women work from dawn to dusk in the fields then go home to do their household chores such as cooking, cleaning, and caring for the children. In addition to no time to attend appointments, the women were left with no time for self-care such as eating properly, getting exercise, and resting, all of which are recommended to ensure a healthy pregnancy for both the mother and child.

Community Barriers

In addition to the organizational barriers of participating in prenatal care practices, migrant farmwomen also discussed several community level barriers to receiving prenatal care while in Northern Ohio. When the women were asked their overall opinion of the medical care during gestation 87% stated the care they received while in Northern Ohio was good. The other 13% stated they have never used reproductive services in Northern Ohio. The 13% not using prenatal care were pregnant during part of the fieldwork season but did not see a provider while in Ohio; they waited until they returned to Texas or Florida to begin prenatal care.

When asked about barriers to receiving prenatal care two-thirds of the respondents stated at least one barrier. The most common barrier stated by the women was a lack of Spanish speaking providers or interpreters in the area. The majority of the women have little to no English language skills and they stated the providers in the area did not speak Spanish. According to the NCFH (2012) language and cultural factors are barriers to migrant farmworkers ability to access health care in the United States.

Additionally, the providers in the local area did not have interpreters. Therefore, in order to receive prenatal care the women had to pay for an interpreter to accompany them to their appointments. Having to pay for an interpreter was a financial burden for the women, who were already losing a days' wages to attend their appointment. Previous research has linked language barriers including a lack of interpreters to poor health outcomes for Hispanic immigrant populations (Cristancho et al., 2008; Perer-Escamilla et al., 2010; Warrick et al., 1992).

Another barrier was a lack of transportation to get to appointments. The majority of clinics offering maternal care services were about 40-50 minutes away. Due to the rural location of the migrant camps, public transportation was not an option; therefore, the women had to find someone to take them to their appointment. A lack of transportation has been documented to be a barrier in receiving medical care in rural settings for Latino children (Cristancho et al., 2008; Flores, Abreu, Olivar, & Kastner, 1998). Having to rely on someone else to take them to their appointments also resulted in lost wages for the person taking them. Typically, it was a spouse or another family member accompanying them, thus two workers in the same household would lose wages for the day.

Access Barriers

The next barrier the women experienced was paying out-of-pocket for prenatal care services. In the United States, roughly 5% of migrant farmworkers have medical insurance (Cristancho et al., 2008; Warrick et al., 1992). Thus, drawing from a public policy influence on health behaviors the federal government initiated a migrant health care program. The federal government subsides approximately 400 migrant health clinics and mobile units across the United States that provide free health care to migrant farmworkers, but the clinics and mobile units are not all encompassing (Hansen & Donohoe, 2003). For example, Farm C had a migrant clinic on-site but the clinic, which was open one day a week from 8:00 AM -4:00 PM, did not offer prenatal care. This is a common practice with clinics and community health centers throughout the United States

due to the high cost of malpractice insurance for obstetrical services (Warrick et al., 1992).

The consensus regarding the services provided at the Migrant Health clinic at Farm C was that it was only good for minor illnesses such as a cough or runny nose. Additionally, because the clinic was only open one day a week, the women stated if they were taking one of their children they would have to stand in line for hours to be seen by a doctor because everybody would go to the clinic the one day it was open each week.

An overarching theme in this section was a loss of wages in order to receive prenatal care. According to Anthony et al. (2008) migrant farmworkers are one of the most economically disadvantaged groups in the United States. Estimates suggest 30% of migrant farmworkers wages fall below the poverty threshold (Anthony et al., 2008; Farquhar et al., 2009; Magana & Hovey, 2003). This was the case in Northern Ohio, based on the amount they earned per person/per week, $100.00, and their work schedule from May thru November, a family with two adults working full-time would earn approximately $6000.00 during the season. Out of their nominal income, the women were expected to pay for an interpreter, childcare, and medical services if they wanted to receive prenatal care while in Northern Ohio.

The migrant women farmworkers had to pay for prenatal care services but were exempt from paying for labor and delivery services. According to the Personal Responsibility and Work Opportunity Act of 1996 undocumented workers are eligible for emergency medical services including the cost of labor and delivery services (Reed et al. 2005). This is a federal program for undocumented immigrants who meet eligibility

requirements such as low-income to cover emergency medical costs using public funds (Reed et al. 2005). Therefore, several of the women had deliveries while in Northern Ohio and didn't have to pay for delivery costs under this Act.

Another means the women found to circumvent paying for prenatal care services and labor/delivery charges were to receive prenatal appointments and give birth after the field season when they returned to Florida or Texas. Both States offer health care to migrant farmworkers regardless of immigration status or residency. Sixty-seven percent of the women planned their pregnancy around their migration to Ohio. Additionally, the women could easily find providers in Florida and Texas that speak Spanish therefore they did not have to pay for an interpreter. Because of this, several women stated they wished they could find work in Florida or Texas instead of having to travel "all the way up here."

Another theme under the umbrella of prenatal care was the higher than average number of cesarean deliveries. Forty-seven percent of the women stated they had at least one cesarean delivery with several women stating they had multiple cesarean deliveries. The national average for cesarean delivery is one in four women (Osterman & Martin, 2013). The women offered a variety of reasons why they believed they had to have a cesarean delivery including no energy to push, preeclampsia, breech baby, and low amniotic fluid. Yolanda, who has been working in the fields for 20 years, stated she had several cesarean deliveries because she had no energy to push when it came time to give birth. She stated she had to no energy to push because she worked from dawn to dusk 5 days a week and half a day on Saturdays, cared for her children, did household chores,

cooked, shopped, and did laundry, leaving no time to eat properly, rest, get enough sleep, and take care of herself.

Alejandra believed she had to have a cesarean delivery because her baby didn't have a father and she had to work until the day she gave birth. She felt her struggles of not having a partner to support her, working long hours, and no time for self-care resulted in having a cesarean delivery.

The other cesareans appeared to be caused by more commonly diagnosed medical conditions. One cesarean delivery was a result of a breech baby. However, Martha thought that maybe her working in the fields caused the baby to be breech. The other two cesarean deliveries were believed to be a result of low amniotic fluid and preeclampsia respectively. The women did not use the technical terms for the birthing complications but I deduced from their descriptions what they were referring to.

Postnatal Care

Moreover, after giving birth, it is recommended by providers to participate in postnatal care for 4-6 weeks after delivery (Rodriquez & Rivieres-Pigeon, 2007). During postnatal care mothers go through many physical and emotional changes all the while caring for a newborn. Postnatal care involves educational components on getting rest, nutrition, and vaginal care. Only three participants attended postnatal care appointments. Two of the women attended formalized postnatal care appointments with a medical provider and the other participant stated she received postnatal care from her friends and family.

As previously stated, part of postnatal care is resting and allowing time for recovery after giving birth. All of the women had time off after giving birth although they did not call it maternity leave. The ten women who gave birth in Florida or Texas after the fieldwork season ended in November were without work until they returned to Ohio in May the following year. Therefore, depending on the date of birth they had several months without work. The most common amount of time not working after giving birth was between two and three months. This is similar to the average amount of maternity leave taken in the United States, which is between 10-12 weeks (CDC, 2013.). However, one participant, Yolanda who has five children, returned to work 7-10 days after giving birth each time because she needed the money. She was able to return to work after 7-10 days because she gave birth to all of her children while working in Northern Ohio.

Research Question 2

Work Day

Based on reports from the participants, whether in gestation or not, the work did not change. The migrant women worked 12–13-hours per day and a half a day on Saturdays with minimal breaks during the day. The breaks consisted of two fifteen-minute breaks, one in the morning and one in the afternoon, and a thirty-minute lunch. The work was strenuous, as they had to be on their knees or bending down all day. Farmwork is rated as one of the most dangerous occupations in the United States (U.S. Department of Labor, 2014b) and is known to be extremely labor intensive (Anthony et al., 2010). One woman discussed how at the beginning of the season it is common for

her knees to be very sore until they "become molded." Several other women discussed the difficulty working through the pregnancy because of fatigue and the additional weight of the belly. Stoop labor, working with soil and heavy machinery, carrying heavy loads, and climbing are known to result in increased musculoskeletal injuries and lower back pain for women farmworkers (Hansen & Donohoe, 2003; Kelley et al., 2013). Additionally, according to Banerjee (2009) standing for long periods and heavy lifting increased the risk of pre-term births and miscarriages (Banerjee, 2009).

The migrant women worked in all weather conditions including sun, rain, and hot and cold climates with no shade or protection from the elements. Kelley et al. (2013) identified heat related illnesses as causing adverse pregnancy outcomes for migrant women. According to participants, one of the farms (Farm B) provided rain suits for the migrant workers, while workers at the other farms had to purchase their own protective clothing if they desired to wear it. All the farms provided access to water and bathrooms on site within close proximity to the workers. However, for the women in gestation it was difficult to walk to the bathroom all the time during the second and third trimesters of gestation.

Evening After Work

In addition to long workdays, the women's work was not done at the end of the formal workday. Upon returning home after working dawn to dusk in the fields, the women had to perform normal daily household chores. All of the participants stated similar responses such as they had to cook, clean, take care of the children, prepare lunches for the next day, and bathe the children and themselves.

Working Through the Third Trimester

Of the 15 women participating in the interviews, only four worked thru the third trimester. All four of the women worked until the day before giving birth. They described how uncomfortably it was and the fatigue they experienced having to work 12–13-hour days at the end of their gestational period. Working thru the third trimester is a common practice for many women; however, the work performed by migrant farmworkers is inherently dangerous for both the mother and developing fetus.

Research Question 3

Harmful Working Conditions

The majority of women believed the only dangerous aspect of their work that could negatively affect the developing fetus is working around pesticides and other chemicals. Pesticide exposure has been linked to a number of adverse pregnancy outcomes for agricultural workers (Acosta-Maldonado, Sanchez-Ramirez, Reza-Lopez, & Levario-Carrillo, 2009; Flocks et al., 2012; Kelley et al., 2013; Rogan & Ragan, 2007) and can occur from direct and indirect contact (Payan-Renteria et al., 2012).

Although, the women didn't see application of chemicals as a major concern because they believed the farm owner would always warn them before applying pesticides. During spraying, the farm owner would give them the choice to not work for the day or wait to come in to work until a few hours after spraying. Some of the women didn't believe the pesticides used at their respective farm were that bad; however, they didn't know what kinds of pesticides were used. Additionally, two women didn't think there was any concern with pesticides. The women who believed pesticides and

chemicals to be of concern did wear a minimum of gloves for protection. As previously stated only one farm provided protective clothing and gloves for the employees, the workers at the other sites had to supply their own.

The women had a good working relationship with the farm owners, stating they felt comfortable asking their employer about working a different job during gestation but they didn't think there were any other jobs available, therefore they never asked. All of the participants seemed to respect their boss and did not fear losing their jobs as a result of gestation. Believing it was up to them if they worked or not; however, they did fear losing their jobs if they took to many days off. They are re-hired the following year based on their work ethics and performance during the previous season; therefore, they are very motivated to work hard and not complain.

Conceptual Framework

The SEM provided the framework that guided the development of my research questions and the basis for data analysis and discussion of findings. Traditionally, health related interventions focused solely on intrapersonal constructs, believing behavior change stemmed from the individual (McLeroy et al., 1988). Based on the findings from this study, constructs about maternal health management are influenced by intrapersonal, interpersonal, community, organizational, and public policy influences.

For migrant women farmworkers the relationship between family and friends has a strong influence on maternal care decisions. Likewise, from an organizational level, the women's desire to maintain employment at the farm was a strong motivator that guided their maternal health care decisions. Additionally, the organizational level was evident in

the sense of community the women shared when discussing coping strategies of dealing with the daily struggles of being pregnant and working in the fields. The women rely on their friends and family in the camps to help care for their children, share meals, transportation, and support.

Additionally the community level has a strong influence on how the women management maternal health. In Northern Ohio, providers lack Spanish language skills thus, the women have to have an interpreter or wait to receive prenatal care until they return to Florida or Texas. The last level in the SEM is public policy. As noted, public policy has a strong influence on maternal health decisions as well. As it stands, Ohio medical care policies do not cover immigrants or undocumented workers, except during labor/delivery therefore the women have to pay for services.

Limitations of the Study

There were several limitations to this study including but not limited to a small sample size, sampling design, specific geographical location and potential for bias. The first limitation was the small sample size of 15 participants. The limited sample size may not truly represent the perceptions and beliefs of migrant women farmworkers within the larger population. Secondly, the study was limited to a non-random sampling design, which restricts the ability to generalize the study findings. Thirdly, all study participants resided in migrant camps in Northern Ohio therefore the results may not be representative of the geographical makeup of migrant women farmworkers outside of the study area. Additionally, the responses to interview questions were self-reported by the study participants; thus, there is a possibility of recall bias or misrepresentation of facts. Lastly,

the study findings were limited to farms that allowed me access to the migrant camps on their property.

Recommendations

This study is by nature an introductory look into a clandestine population of women in the United States. The findings of this study contribute to the knowledge base of migrant women farmworkers perceptions of perinatal care management and the various levels that influence their decisions. Intrapersonal level factors offer some of the easiest manners to revise health behaviors. The assessment of prenatal care knowledge in this study revealed a need for a comprehensive maternal health care education for migrant women farmworkers in Northern Ohio. To reach this population, health care providers should review maternal health care programs used in other rural Hispanic farming communities and tailor a program to meet the needs of the women in Northern Ohio.

Another recommendation is continued research with migrant women farmworkers in Northern Ohio and across the U.S. The findings from this study offer numerous areas for continued research in various aspects of maternal health management such as exploring the higher than average rate of cesarean births or exploring any adverse pregnancy outcomes such as miscarriages or birth defects. Similarly, research is needed on the nutritional status for this population during gestation, as they have limited time to prepare healthy food choices.

Moreover, research is needed regarding the potentially dangerous aspects of working in the fields for the mother and fetus from intrapersonal, community, and

organizational points of view. This study identified pesticides as a potentially dangerous aspect of farmwork but more research in needed in this realm to fully understand the women's views on this topic. Further research is needed from an organizational level exploring how the farm owners perceive women in gestation working for them or how it impacts their business. From the community level, how health care services could better be used to benefit the needs of the migrant women farmworkers. Lastly, from a policy perspective how immigration health care reform will impact maternal health care for migrant women farmworkers in Ohio.

Implications for Social Change

Findings of this study have the potential to create positive social change for an underserved population. The findings contribute to the existing information about the lived experiences of migrant women farmworkers regarding perinatal care management, as well as, enhancing awareness of the challenges or barriers they face while in Northern Ohio. Additionally, the findings have the capability to enhance awareness and understanding of maternal care management for migrant healthcare clinics and community providers in close proximity to the migrant camps.

The knowledge gained from this study can also be used to influence local, state, and federal migrant healthcare policy towards developing a more comprehensive maternal healthcare program for migrant women farmworkers. Current regulations in many states, including Ohio, do not guarantee access to maternal healthcare for migrant women. Thus, by disseminating the findings of this study I hope to bring a general

awareness and advocate for migrant women farmworkers regarding their maternal healthcare needs.

I intend to disseminate the results of this study via multiple venues including local presentations, professional conferences, and peer-reviewed journals. I will share the results of the study locally with the Ohio Department of Job and Family Services, a local agency who works directly with migrant farmworkers. The Director has already requested an in-person presentation once I am finished. I will also share the results of the study with the farm owners who signed letters of cooperation. The results will be presented at a minimum of one professional conference. My abstract has been accepted by the Society for Applied Anthropology conference in March 2015. Lastly, the results will be distributed via publication in a peer-reviewed journal. By disseminating my research to a board audience I will bring greater awareness to maternal care management and the barriers migrant women farmworkers experience from various influences.

Researcher's Experience

In an attempt to reduce researcher bias I used bracketing. Bracketing is a tool used in phenomenological research to reduce researcher bias and assumptions to understand the phenomenon being studied from the participants' point of view. Therefore, before commencing data collection I identified my preconceived ideas and perceptions about the participants and the how I thought they managed maternal health. I journaled about my thoughts, perceptions, opinions, and feelings of migrant women farmworkers and maternal care management daily for several weeks while waiting for IRB approval. Additionally, during data collection I continued to maintain field notes

and journaled at the end of each fieldwork day to reduce researcher bias. Finally, during data collection and data analysis I discussed my thoughts, feelings, and beliefs with colleagues and my advisor to set aside any preconceived ideas that may have interfered with the true essence of the participant responses.

Summary

In conclusion, based on data analysis I was able to determine that migrant women farmworkers have a basic understanding of prenatal care but due to numerous factors they could not participate in what they perceived as normal prenatal care. Additionally, under the umbrella of research question 1 I found a higher than average number of cesarean deliveries.

Research Question 2 explored what type of work migrant women farmworkers in gestation participant in while working in the fields. It was found that women in gestation participate in the same work as women not in gestation; the work does not change. Additionally, the migrant women farmworkers in gestation are tasked with performing household chores once home from working in the fields all day, leaving little to no time for self-care.

The third research question explored what conditions of farmwork the migrant women felt were harmful to the fetus. The only condition of farmwork they found harmful was working with pesticides and other chemicals. Although, the women didn't see pesticides as a major concern because they believed the farm owner would tell them before application allowing them adequate time to avoid the chemicals by coming in later in the day. Lastly, some of the women stated they didn't believe the pesticides at their

respective farms were that bad; however, they didn't know what type of chemicals were being used.

The conceptual framework used to guide the research questions and the basis for data analysis and discussion was the SEM. SEM is based on the belief that behavior and beliefs stem from five levels, not solely from intrapersonal constructs. Based on the interpretation of the findings, constructs of SEM about maternal health management were strongly influenced by intrapersonal, interpersonal, community, organizational, and public policy influences.

Lastly, Chapter 5 discussed recommendations for future research, several implications for social change, and my experiences as the researcher. The findings from this study contribute to the knowledge base of migrant women farmworkers' perceptions of perinatal care management and the various levels that influence their decision-making processes. Findings from this study can enhance awareness of the challenges migrant women farmworkers experience while receiving perinatal care in Northern Ohio. Additionally, the results can be used to influence local, state, and federal migrant healthcare policies towards developing comprehensive maternal healthcare for migrant women farmworkers.

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Appendix A: Letter of Cooperation

Letter of Cooperation from (Insert Farm Name)

Farm Name
Address

Date

Dear Stacey Pilling,

Based on my review of your research proposal, I give permission for you to conduct the study entitled A Qualitative Analysis of Migrant Women's Perceptions of Maternity Care Management on the property of (Insert Farm Name). As part of this study, I authorize you to conduct up to 15 semi-structured in-depth interviews with migrant women farmworkers between the ages of 18 and 40 who have had at least one pregnancy in the past during non-working hours. Proper names will not be used. All participants will be assigned a pseudonym to protect their identity as well as the farms privacy. Interviews can last up to 1-½ hours. Individuals' participation will be voluntary and at their own discretion.

To ensure validity, Ms. Pilling may audio record interviews (with consent from study participant) using a digital recorder. All interviews will follow a structured interview worksheet to aide in consistency between study participants. Furthermore, to ensure validity Ms. Pilling can return to the site to review interview transcripts with study participants to ensure accuracy. If requested, (Insert Farm Name) will receive an electronic copy of the study when complete.

We understand that our organization's responsibilities include: providing access to speak with women migrant farmworkers and permission to conduct interviews on farm property. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting and that this plan complies with the organization's policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student's supervising faculty/staff without permission from the Walden University IRB.

Sincerely,

Name _____Date:_____

Appendix B: Introduction Letter

Stacey Pilling
6902 Roundelay Rd N
Reynoldsburg, OH 43068
(906) 370-3706
Stacey.pilling@waldenu.edu

Date:

Farm Name
Address

Dear:

My name is Stacey Pilling and I am a doctoral student at Walden University. I am writing to ask for your assistance with my study. My research study focuses on the beliefs and influences that guide migrant women farmworkers' views of reproductive health and how they manage gestation during their migration to Northern Ohio. I will be inviting all women migrant farmworkers between the ages of 18 and 40 years of age who have experienced at least one pregnancy while working in the Midwest stream to be in the study. I will be interviewing a total of 15 women between the months of August-October while they are in Northern Ohio working in the fields and staying at the migrant camps. It is highly possible all 15 interviews will not be conducted on (Insert Farm Name) property. I am requesting permission from several farms in Northern Ohio. I am projecting to conduct interviews on Sundays or in the evenings as to not impact production. Also, if some from the farm is available to be interviews I would like to ask them how pregnancy impacts production from the farms perspective.

What I ask of you is to allow me permission to be on farm property and to speak with the migrant women. Upon request I can submit a list of questions I will be asking the women and provide a copy of the study when completed.

If you have any concerns or further questions please contact me at (906) 370-3706 or by email at Stacey.pilling@waldenu.edu. Additionally, my advisor can be reached at Jeanne.Connors@waldenu.edu.

If you are in concurrence of my study please SIGN and RETURN the Letter of Cooperation in the return envelope or SIGN letter with email address and EMAIL the letter to IRB@waldenu.edu and Stacey.pilling@waldenu.edu.

Thank you,

Stacey Pilling

Appendix C: Flyer English/Spanish

Help me with my research for mothers!

WALDEN UNIVERSITY
A higher degree. A higher purpose.

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Who?
The researcher invites all migrant farm workers aged between 18 and 40 years who have experienced at least one pregnancy during their fieldwork to participate in this study.

Purpose:
Is to investigate the values and beliefs that guide migrant farm workers decisions about reproductive health and how they deal with pregnancy during migration.

Call me at (906) 370-3706 o EMAIL: Stacey.pilling@waldenu.edu

Stacey Pilling (906) 370-3706
Stacey Pilling (906) 370-3706
Stacey Pilling (906) 370-3706
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Stacey Pilling (906) 370-3706
Stacey Pilling (906) 370-3706

Ayudarme con mi investigación con las madres!

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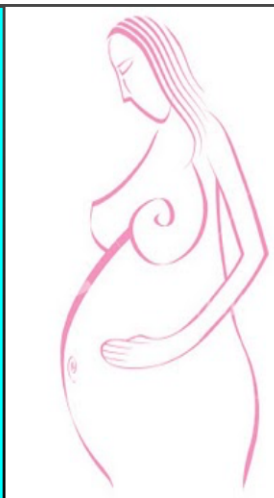
¿Quién?

El investigador está invitando a participar en este estudio a todas las trabajadoras agrícolas migrantes de edades de entre 18 y 40 años que hayan experimentado por lo menos un embarazo durante su trabajo en el campo.



Propósito:

Investigar los valores y creencias que guían los criterios de las trabajadoras agrícolas migrantes en cuanto a la salud reproductiva y a la forma en que manejan el período de gestación durante su migración.

Llámame (906) 370-3706 o EMAIL: Stacey.pilling@waldenu.edu

Stacey Pilling (906) 370-3706 | Stacey Pilling (906) 370-3706 | Stacey Pilling (906) 370-3706 | Stacey Pilling (906) 370-3706 | Stacey Pilling (906) 370-3706 | Stacey Pilling (906) 370-3706 | Stacey Pilling (906) 370-3706 | Stacey Pilling (906) 370-3706 | Stacey Pilling (906) 370-3706 | Stacey Pilling (906) 370-3706

Appendix D: Interview Guide English/Spanish

Interview Guide in English

Demographic Questions

1. Age?
2. Marital status?
3. Nationality?
4. Level of education?
5. Number of children?
6. Number of pregnancies?
7. How long have you been working in the fields?

Interview Guide

8. Describe what a normal pregnancy (perinatal care) is like for you?
9. How does this change when working in the fields?
10. Describe typical medical care you received while working in the fields prior to giving birth? After giving birth? (Perinatal care)
11. Did you have the baby here while in Northern Ohio or elsewhere? Describe what it was like?
12. What kind of family support did you have to care for yourself and the baby?
13. Describe what it was like going back to work after giving birth? How long were you off from work? Describe who cared for the child while you were working?

14. How often did you attend medical appointments? What kind of information did you receive during medical appointments? Did you need an interpreter for your appointments?
15. What significant factors impacted you receiving medical care?
16. Overall, what are your perceptions of the care you received by medical practitioners or other health care providers while working in Ohio?
17. Describe what a typically evening is like after working in the fields? What type of work do you perform once home in the migrant camp?
18. Describe a typically day off?
    a. How often do you have rest days?
19. What are your perceptions about the camp/living quarters?
20. How does the camp help or hinder you being able to care for yourself during pregnancy? After pregnancy? And children?
21. What is a typical day like for a woman working in the fields?
22. How about for women who are pregnant?
23. What are/were the working conditions like? For example access to bathrooms, breaks, shade, water, etc?
    a. Did work-load or working conditions change during the pregnancy?
24. Describe what it was like working during the last trimester?
25. What experiences, if any, did you have regarding certain types of work you avoided or thought harmful to your or the babies health during pregnancy?

26. What precautions, if any, did you take to protect you and the baby while working in the fields during pregnancy?
27. Describe what would happen if you refused certain types of work because of the pregnancy? Did you ever feel your job was in jeopardy due to the pregnancy?
28. Describe how your employer treated you while pregnant? Other men and women farmworkers?
29. What would you change if you could?

Interview Guide in Spanish

Preguntas Demográficas

30. ¿Edad?
31. ¿Estado civil?
32. ¿Nacionalidad?
33. ¿Escolaridad?
34. ¿Número de hijos?
35. ¿Número de embarazos?
36. ¿Cuánto tiempo tiene trabajando en los campos?

Guía de Entrevista

37. ¿Describa cómo es un embarazo (cuidado prenatal) normal para usted?
38. ¿Cómo cambia esto cuando trabaja en los campos?
39. ¿Describa el cuidado médico típico que recibió mientras trabajaba en los campos antes de dar a luz? ¿Después de dar a luz? (Cuidado prenatal)
40. ¿Tuvo a su bebé aquí mientras estaba en el Norte de Ohio o en otra parte? ¿Describa cómo fue?
41. ¿Qué tipo de apoyo familiar tuvo para cuidar de usted y del bebé?
42. ¿Describa cómo fue volver a trabajar después de dar a luz? ¿Cuánto tiempo faltó al trabajo? ¿Describa quién cuidó al bebé mientras usted trabajaba?
43. ¿Con qué frecuencia acudió a citas médicas? ¿Qué tipo de información recibió durante sus citas médicas? ¿Necesitó un intérprete para sus citas?
44. ¿Qué factores significativos impactaron el que usted recibiera atención médica?

45. ¿En general, cuál es su percepción del cuidado que recibió por parte de los médicos u otro personal de salud mientras trabajaba en Ohio?
46. ¿Describa cómo es una tarde típica después del trabajo en los campos? ¿Qué tipo de trabajo realiza al llegar a casa en el campamento migrante?
47. ¿Describa un día libre típico?
    a. ¿Con qué frecuencia tiene días de descanso?
48. ¿Cuál es su percepción del campamento/alojamiento?
49. ¿Cómo ayuda o impide el campamento el que sea capaz de cuidarse durante el embarazo? ¿Y después de dar a luz? ¿Y los niños?
50. ¿Cómo es un día típico para una mujer que trabaja en los campos?
51. ¿Y para una mujer embarazada?
52. ¿Cómo son/eran las condiciones? ¿Por ejemplo el acceso a baños, descansos, sombra, agua, etc?
    a. ¿Cambió la carga de trabajo o las condiciones durante el embarazo?
53. ¿Describa cómo era el trabajo durante el último trimestre?
54. ¿Qué experiencias, si existieron, tuvo sobre ciertos tipos de trabajos que evitó o pensó que podrían ser dañinos para la salud de usted o del bebé durante el embarazo?
55. ¿Qué precauciones, si las tuvo, tomó para protegerse a usted o al bebé mientras trabajaba en los campos durante el embarazo?

56. ¿Describa qué sucedería si se negara a realizar ciertos tipos de trabajo debido al embarazo? ¿Alguna vez sintió que su trabajo estaba en riesgo debido a su embarazo?
57. ¿Describa cómo fue tratada por su empleador durante su embarazo? ¿Y por otros hombres y mujeres trabajadoras agrícolas?
58. ¿Qué cambiaría si pudiera?

Appendix E: Consent Form English/Spanish

Consent Form English

You are invited to participate in a research study that focuses on what a normal migrant women farmworkers' pregnancy is and how they manage pregnancy while working in the fields in Northern Ohio. The researcher is inviting all women migrant farmworkers between the ages of 18 and 40 years of age who has been pregnant at least one time while working in the Midwest to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by: Stacey A. Pilling, a doctoral student/candidate at Walden University.

Background Information:

The purpose of this study is to understand the beliefs and influences migrant women farmworkers have about pregnancy and how they deal with pregnancy while working in the fields in Northern Ohio.

Procedures:

If you agree to be in this study, you will be asked to:

- Participate in an in-depth face to face interview
- Lasting between 45 min – 1 1⁄2 hours

Here are some sample questions:

1. Describe what a normal pregnancy (perinatal care) is like for you?
2. How does this change when working in the fields?
3. Describe typical medical care you received while working in the fields prior to giving birth? After giving birth? (Perinatal care)
4. What is a typical day like for a woman working in the fields?
5. How about for women who are pregnant?

Voluntary Nature of the Study:

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at ____ (Insert Farm Name/Migrant Camp) will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:

Being in this type of study may make you feel tired, experience increased stress, or become upset. If you experience any of these feelings and would like to speak with someone in confidentiality there is a local crisis line at 1-800-273-8255 that operates 24/7 that can help. This study will not pose any risk to your safety.

The results of this study will provide an understanding of how migrant women farmworkers think about and deal with pregnancy while working in the fields. Also, the results will provide farm owners and doctors with more information about the needs for migrant women farmworkers who are pregnant.

Payment:

Participants will receive $10.00 which can be used to help pay for childcare during the interview, but is being offered to thank you for the time given.

Privacy:

The records of this study will be kept private. In any sort of report that might be published, the researcher will not include any information that will make it possible to identify you. You will be referred to, in the report, as a "woman migrant farmworker" and given an alias. Research records will be kept in a locked file and on a secured computer; only the researcher will have access to the records. Data will be kept for a period of 5 years, as required by Walden University.

Contacts and Questions:

The primary researcher is Stacey A. Pilling. The researcher's advisor is Dr. Jeanne Connors. You may ask any questions you have now. If you have questions later, you may contact them at: Stacey.pilling@waldenu.edu or Jeanne.connors@waldenu.edu. Should you have any additional questions regarding how this research is being conducted, you may also contact The Walden University's Research Participant Advocate, Dr. Leilani Endicott, at: (612) 312-1210 or irb@waldenu.edu. Walden University's approval number for this study is **09-23-14-0282350** and it expires on **September 22, 2015**.

You will be given a copy of this form for your records. Thank you very much for your participation and assisting me in my work. It is my hope that this work will help to better serve your community.

Statement of Consent:

I have either read or have been read the above information. I have asked questions and received answers. I consent to participate in the study.

Printed Name of Participant_____ Date_____

Signature of Participant_____ Date_____

Signature of Investigator_____ Date_____

Consent Form Spanish

Formato De Consentimiento

Se le invita a participar en un estudio de investigación que se enfoca en las creencias e influencias que guían los criterios de las trabajadoras agrícolas migrantes en cuanto a la salud reproductiva y a la forma en que manejan el período de gestación durante su migración hacia el Norte de Ohio. El investigador está invitando a participar en este estudio a todas las trabajadoras agrícolas migrantes de edades de entre 18 y 40 años que hayan experimentado por lo menos un embarazo durante su trabajo en el [Midwest Stream]. Este formato es parte de un proceso denominado “consentimiento informado” que permite informarle sobre este estudio antes de que decida si desea participar.

Este estudio es realizado por: Stacey A. Pilling, estudiante/candidata doctoral en la Walden University.

Antecedentes:

El propósito de este estudio es el examinar las creencias e influencias que guían los criterios de las trabajadoras agrícolas migrantes en cuanto a la salud reproductiva y la forma en que manejan el período de gestación durante su migración al Norte de Ohio.

Procedimientos:

Si acepta participar en este estudio, se le pedirá que:

- Participe en una entrevista exhaustiva en persona
- Duración aproximada de 45 min – 1 1 /2 horas

Estos son algunos ejemplos de preguntas:

1. Describa lo que es un embarazo (cuidado prenatal) normal para usted

2. ¿Cómo cambia esto cuando trabaja en los campos?

3. Describa los cuidados médicos típicos que recibe cuando trabaja en los campos antes de dar a luz. ¿Después de dar a luz? (cuidado prenatal)

4. ¿Cómo es un día típico para una mujer que trabaja en los campos?

5. ¿Y para una mujer que está embarazada?

Naturaleza Voluntaria del Estudio:

Este estudio es voluntario. Todos respetarán su decisión de participar o no en el estudio. Nadie en ____ (Insertar Nombre del Campo/Campamento Migrante) la tratará diferentemente si usted decide no participar en este estudio. Si usted decide unirse al estudio hoy, usted puede cambiar de opinión después. Usted puede suspender su participación en cualquier momento.

Riesgos y Beneficios de Participar en el Estudio:

La participación en este tipo de estudio involucra algún riesgo de pequeñas incomodidades que pueden ser encontradas en la vida diaria, tales como fatiga, estrés o sentimientos de molestia. La participación en este estudio no plantea un riesgo para su seguridad o su bienestar. Si usted experimenta cualquiera de estos sentimientos y quisiera hablar con alguien en confidencialidad, hay una línea de crisis local al 1-800-273-8255 que opera 24/7 que pueden ayudar.

Los resultados de este estudio proporcionarán una mayor comprensión de los criterios de las trabajadoras agrícolas migrantes con respecto a su salud reproductiva durante su trabajo en los campos. Además, los resultados aumentarán las posibilidades de que los profesionales de la salud tengan una mejor comprensión de los cuidados maternales de las trabajadoras agrícolas migrantes. Además, los resultados proporcionarán finqueros y doctores con más información sobre las necesidades de los trabajadores agrícolas migrantes mujeres que están embarazados.

Pago:

Los participantes recibirán $10.00 dólares que se puede utilizar para ayudar a pagar el cuidado de niños durante la entrevista , pero se ofrece a darle las gracias por el tiempo dado.

Privacidad:

Los archivos de este estudio se mantendrán en privado. En cualquier tipo de reporte que pueda ser publicado, el investigador no incluirá ningún tipo de información que pueda posibilitar la identificación de las participantes. Las participantes serán referidas en el reporte como “trabajadora agrícola migrante” y se les asignará un alias. Los archivos de la investigación se mantendrán bajo llave y en una computadora protegida; únicamente el investigador tendrá acceso a los archivos. La información se guardará por un período de 5 años, por requisito de la Walden University.

Contactos y Preguntas:

El investigador principal es Stacey A. Pilling. El asesor del investigador es Dr. Jeanne

Connors. Usted puede preguntar cualquier duda ahora. Si tiene alguna pregunta después, puede contactarlos en: Stacey.pilling@waldenu.edu o Jeanne.connors@waldenu.edu. Si tuviera alguna pregunta adicional sobre cómo es conducida esta investigación, usted puede contactar al Abogado de Participante de Investigacion de la Walden University, Dr. Leilani Endicott, en el: (612) 312-1210 o irb@waldenu.edu. El número de aprobación de la Walden University para este estudio es **09-23-14-0282350** y expira el **22 de septiembre de 2015**.

Se le entregará una copia de este formato para sus archivos. Muchas gracias por su participación y por asistirme en mi trabajo. Es mi deseo que este trabajo contribuirá a servir mejor a su comunidad.

Declaración de Consentimiento:

He leído o me han leído la información anterior. He preguntado mis dudas y he recibido respuestas. Consiento a participar en el estudio.

Nombre del Participante _____ Fecha_____

Firma del Participante _____ Fecha_____

Firma del Investigador_____ Fecha_____

Curriculum Vitae

Stacey Pilling, Ph.D.

Email: Stacey.pilling@waldenu.edu

Education

Ph.D.	Public Health, Health Communication, Walden University, Minneapolis, MN.	2015
M.S	Environmental Policy, Michigan Technological University, Houghton, MI	2008
B.A.	Social Sciences, Minor Spanish Michigan Technological University, Houghton, MI	2005

Experience

Environmental Protection Specialist, Instructor, Department of Defense, Defense Logistics Agency, Columbus, Ohio, 43213.	May 2014-Present
Environmental Protection Specialist, Department of Defense, Defense Logistics Agency, Columbus, Ohio, 43213.	Jan 2013-May 2014
Supervisory Health Science Specialist, Department of Veterans Affairs, Canandaigua, NY, 14424.	Apr 2012-Jan 2013
Health Science Specialist, Department of Veterans Affairs, Canandaigua, NY, 14424.	May 2009-April 2012
Health Science Specialist, Department of Veterans Affairs, Iowa City, IA, 52240.	May 2008-May 2009

Publications/Presentations

Pilling, S.A. (2011). The human cycle of water: Water management and anthropogenic contaminant pathways in Potam, Sonora, Mexico's water cycle. *Environment, Development, and Sustainability, 13*(6).	Dec 2011

Pilling, S.A., Williams, M., Brackett, R., Gourley, R., Vander Weg, M., Christensen, A., Kaboli, P., Reisinger, H. (2010). Part I, Patient perspective: activating patients to engage their providers in the use of evidence-based medicine: a qualitative evaluation of the VA Project to Implement Diuretics (VAPID). *Implementation Science, 5*(23).	Mar 2010

Teaching Experience

Currently teach two courses for the Defense Logistics Agency: 1) Storage and Handling of Hazardous Material and 2) Resource Conservation and Recovery Act.	May 2014-Present

Professional Development

RCRA Fundamentals, McCoy and Associates, Denver, CO.	July 2014
Spill Prevention Control and Countermeasures Compliance Manager, Aarcher Institute, Annapolis, Maryland.	Dec 2013
Storm water Compliance Manager, Aarcher Institute, Annapolis, Maryland.	Sept 2013
Transportation of Hazardous Material/Hazardous Waste for DOD, DLA Training, Columbus, Ohio.	June 2013
RCRA Fundamentals, McCoy and Associates, Hilton Head, South Carolina.	May 2013
40- Hour HAZWOPER Training, Mid-America Education Center OSHA, Columbus, Ohio.	May 2013

Affiliations/Memberships

Federally Employed Women (FEW)	Sept 2013
Society for Applied Anthropology (SFAA)	July 2013
Toastmasters International	May 2013
American Public Health Association (APHA)	Aug 2012

National Environmental Health Association (NEHA) May 2012

Research Interests

Qualitative research methodologies, migrant farmworker healthcare, maternal health, environmental health.

Research Experience

Ph.D. research: Dissertation Title: A qualitative review of migrant women farmworkers perceptions of perinatal care management (2015).

Working knowledge of NVivo 10, software for qualitative research (May 2008 –Present).

Qualitative researcher for the Department of Veterans Affairs, Iowa City, IA (May 2008-May 2009).

M.S. research: Thesis: Perceptions and realities of water quality in a Yaqui village (2008).