WOMEN’S VOICES:
PRENATAL CARE EXPECTATIONS OF WOMEN LIVING IN RURAL HAWAI’I

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Abstract

**Background:** Despite access to prenatal care services, pregnant women in rural Hawai`i do not adequately utilize them. Underutilization of prenatal care can include delayed access to care and missed and infrequent appointments leading to suboptimal health outcomes. Prenatal care services include health screening, promotion, maintenance and education, risk assessment, interventions to prevent or treat pregnancy complications, and referrals for additional services. Pregnant women who receive adequate care are more likely to have healthier babies and fewer complications during labor and recovery.

Conversely, underutilization of prenatal care can include delayed initiation of care and missed or infrequent appointments, potentially leading to suboptimal outcomes. Research in rural Hawai`i suggests that underutilization of prenatal care could be the result of personal, social, and environmental contexts. The purpose of this study was to illuminate factors contributing to the underutilization of prenatal care by women living in rural Hawai`i, by exploring their expectations and experiences with prenatal care.

**Method and Findings:** This study used a qualitative descriptive design to describe the emic perspective of pregnant women living in rural Hawai`i using a purposive sample and a cross-sectional design. The scope of the study included women who were pregnant for the first time and seeking or already enrolled in prenatal care. The data analysis resulted in four themes: 1) “My Body Knows How to Do”: The Normalcy of Pregnancy; 2) Seeking Knowledge, Seeking Choices, 3) “What’s the Point?”: When Care During Pregnancy Is Not Satisfying; and 4) Having a Voice.

**Conclusions:** The results of this small study sample indicated that women in rural Hawai`i viewed pregnancy as a normal process, wanted relevant information and choices during their
prenatal care, and desired to have collaborative relationships with prenatal care providers who were supportive and attentive. When these elements were present, women were more likely to continue utilization of that care.

Keywords: prenatal care, prenatal care access, prenatal care utilization, adequacy of prenatal care, prenatal care for women living in Hawai`i
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CHAPTER 1. INTRODUCTION

In the United States (US) many improvements in perinatal health outcomes have been demonstrated, but results have not been consistent, specifically in rural areas and with ethnic and minority populations (U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion, 2015). Improved access to health insurance and prenatal care, an increased emphasis on early screening and treatment for pregnancy complications, and improved epidemiologic surveillance systems are interventions that have improved perinatal outcomes. Yet, prenatal care is often underutilized in rural populations, particularly by ethnic and minority populations. Perinatal indices such as prenatal care initiated during the first trimester and adequate number of prenatal care visits are below Healthy People 2020 objectives in many rural areas of the US including rural areas of Hawai`i (see Table 1).

This chapter presents a brief summary of the study setting, the background and significance leading to the problem under study (the under utilization of prenatal care in rural Hawai`i), relevant literature indicating why this problem should be investigated, the research questions and design and data collection and analysis, and the results.

Problem Statement

Access to prenatal care is a major concern in many regions of Hawai`i, but once prenatal care is accessible, the underutilization of prenatal services by women in rural Hawai`i contributes to adverse maternal/newborn outcomes (Schempf, Hayes, & Fuddy, 2010). Underutilization reasons are multifactorial and could include negative perceptions by women of the worth of prenatal care (Affonso, Korenbrot, De, & Mayberry, 1999). Learning about the reasons for
underutilization of prenatal care has the potential to help health care providers improve prenatal care services in rural settings.

**Background and Significance**

Health disparities including underutilization of prenatal care in rural Hawai`i by ethnic, and minority populations (see Table 2) is poorly understood. Research in rural Hawai`i suggests that underutilization of prenatal care could be the result of personal, social, and environmental contexts (see Table 3) (Schempf et al., 2010). In addition, prenatal care perceived by women as culturally insensitive or incompetent could contribute to women choosing not to participate in that care (Affonso, Korenbrot et al., 1999; Baruffi et al., 1998; Mor, Alexander, Kogan, Kieffer, & Hulsey, 1995; Todd & Peabody, 2004).

In a large, integrative literature review of prenatal care completed by Novick (2009), a critical finding was the limited evidence that had been gathered or considered about the concerns of the recipients of prenatal care (women), concerns that were and could be voiced by women themselves. Trying to improve health outcomes without data from the individuals within a community limits the usefulness of research and any proposed interventions meant to improve health outcomes (Minkler & Wallerstein, 2003).

In Hawai`i, even with improved access to prenatal care, underutilization of prenatal care continues. A recent unpublished literature review of prenatal care research in Hawai`i was completed (see Appendix A). In most of the studies, perinatal ethnic disparities in Hawai`i, specifically in the rural areas, were found. Although prenatal care may be available in rural settings in Hawai`i, prenatal care by itself might not be enough to overcome risks associated with rural health and ethnic disparities. In rural areas, adverse birth outcomes are closely tied to socioeconomic disparities and ethnicity and may indicate more about additional unmet needs of
the populations, such as cultural awareness, to whom the interventions are addressed than about the efficacy of the interventions themselves (Baruffi et al., 1998).

**Setting**

The state of Hawai`i encompasses nearly the entire volcanic Hawaiian Island chain, which comprises hundreds of islands spread over 1,500 miles (2,400 km) (Hawaii Tourism Authority, 2013). At the southeastern end of the archipelago, the eight "main islands" are (from the northwest to southeast) Niʻihau, Kauaʻi, Oʻahu, Molokaʻi, Lānaʻi, Kahoʻolawe, Maui and the Island of Hawaiʻi (see Figure 1). The archipelago is physiographically and ethnologically part of the Polynesian subregion of Oceania. Although a part of the US, the State of Hawaiʻi is approximately 2,500 miles from the U.S. mainland and in the center of the Pacific Ocean.

Hawaii County encompassing all of the Island of Hawai`i (“The Big Island”), and the setting for this study, is the largest island geographically in the state with a land mass of 5,087 square miles. Hawaii County has the second largest county population (Honolulu County has the largest population) with 190,821 residents (see Table 4); however, Hawaii County has the lowest population density per square mile in the state (State of Hawai`i Department of Business Economic Developement and Tourism, 2014). Rural Hawai`i is defined as those areas outside of Honolulu County (encompassing all of Oahu). The remaining Hawaiian islands (and their counties) are all considered rural including Kauai, Kaho`olawe, Lāna`i, Maui, Molokai`i, Ni`ihau, and the Island of Hawai`i (Schempf et al., 2010) (see Figure 1).

The population of Hawai`i is ethnically diverse. No single ethnic group comprises a majority. Three ethnic groups comprise over 60 percent of the population, based on 2010 Department of Health estimates: Caucasians, Hawaiians/part-Hawaiians, and Japanese (see Figure 2) (Hawai`i State Department of Health, Hawai`i Health Surveillance Program, &
Hawai`i State Department of Business Economic Development and Tourism, 2010). A higher percentage of Native Hawaiians live on the Island of Hawai`i compared to the rest of the state (see Table 5).

**Purpose of the Study**

The purpose of this study was to address underutilization of prenatal care by women living in rural Hawai`i, by focusing on women’s expectations and experiences with prenatal care.

**Research Questions**

In order to address the purpose of this study, the following research questions were asked:

1) What do pregnant women living in rural areas of Hawai`i know about and expect from prenatal care?

2) Are these women’s expectations about prenatal care being met?

3) What are women’s experiences of participating in a research study about prenatal care?

**Method**

The research method employed in this study was based on the purpose of the study and the research questions that had been posed. The focus of the study was a result of an extensive literature review that revealed that there are few published studies that have asked pregnant women about their expectations and experiences of prenatal care. The importance of identifying this gap in the literature was that finding reasons for underutilization of prenatal care may be associated with pregnant women’s perceptions of its relevance in their lives. Therefore, the research questions were specifically focused on the expectations of prenatal care by pregnant women living in rural areas of Hawai`i in Hawai`i County. In order to answer the research questions, a qualitative descriptive design was used.
Once the University of Hawai`i at Mānoa (UHM) Committee on Human Studies (CHS) approval of the study was obtained, recruitment of participants began. Women meeting the inclusion criteria were consented. After obtaining participants’ consents, the researcher conducted interviews using open-ended questions. The interviews were audio-taped and subsequently transcribed for thematic data analysis.

**Results**

A total of three women met eligibility requirements and consented to the study. All of the women were experiencing their first pregnancy, were engaged in prenatal care, and resided in Hawai`i County (i.e., a rural area). Data analysis revealed four themes regarding underutilization of care: 1) “My Body Knows How to Do”: The Normalcy of Pregnancy; 2) Seeking Knowledge, Seeking Choices, 3) “What’s the Point?”: When Care During Pregnancy Is Not Satisfying; and 4) Having a Voice.
CHAPTER 2. LITERATURE REVIEW

This chapter will present the results of the literature review and includes a brief history of prenatal care in the US, national initiatives that improved access to prenatal care, the benefits associated with prenatal care use, and national benchmarks that have been established to set goals for monitoring perinatal health outcomes. Information about Hawai`i and the current status of prenatal care in Hawai`i will be presented. A review of the prenatal care literature, both national and specific to Hawai`i will be presented. The problem of not meeting prenatal care utilization goals nationally and specifically in rural areas of Hawai`i will be addressed. Finally, theoretical and conceptual frameworks that have been used to guide the analysis of this study will be presented.

Prenatal Care

Prenatal care provides the mechanism through which a woman receives health care services that include health screening, promotion, maintenance and education, risk assessment, interventions to prevent or treat pregnancy complications, and referrals for additional services (American College of Obstetricians and Gynecologists & American Academy of Pediatrics, 2007; Cunningham et al., 2005; Varney, Kriebs, & Gregor, 2004). The goals of prenatal care are maternal, fetal, and newborn health promotion, health maintenance, and the prevention of adverse maternal and newborn outcomes (Alexander & Kotelchuck, 2001; American College of Obstetricians and Gynecologists & American Academy of Pediatrics, 2007; Varney et al., 2004). Prenatal care encompasses the detection, treatment, or prevention of adverse maternal, fetal, and infant outcomes as well as interventions to address psychosocial stress, detrimental health behaviors such as substance abuse, and adverse socioeconomic conditions (Alexander &
During prenatal care pregnancy problems can be detected as early as possible so that they can be monitored or treated before a woman gives birth.

Many healthcare providers and researchers view prenatal care in a broad context. They recognize it as an opportunity to reach a large population at a teachable and receptive moment; an opportunity to promote preventative care, health promotion, and family planning (Center for Disease Control and Prevention, 2007). Pregnant women who receive adequate prenatal care are more likely to have healthier babies and fewer complications during labor and recovery (e.g., lower rates of fetal and infant deaths, preterm delivery, preeclampsia, cesarean sections, low birth weight [LBW] infants, small-for-gestational age [SGA] infants, avoidance of lengthy postpartum hospital stays, and maintenance of healthy weight postpartum) (Conway & Kutinova, 2006; Kotelchuck, 1994; U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion, 2015; Walker, McCully, & Vest, 2001).

In 2008, the US ranked 31 in infant mortality among 32 industrialized nations (Heisler, 2012). Despite this low international ranking, the US has made progress in reducing the infant mortality rate over the past 58 years, moving from 29.2 deaths of infants under 1 year of age per 1,000 births in 1950 to 6.6 deaths per 1,000 births in 2008 (Van Dijk, Anderko, & Stetzer, 2011). Prenatal care access and utilization account for some of this improvement.

**Prenatal Care Services and Delivery Systems**

The basic structure of the US prenatal health care system was set up in the early 1930s as a provider-to-patient model (Baldwin, 2003). It usually consists of a series of one-on-one visits with a health care provider that typically involve 10 to 15 minutes to monitor normal pregnancy progress, screen for and identify risks, and implement risk reduction strategies and therapeutic interventions as indicated (Alexander & Kotelchuck, 2001; Varney et al., 2004). Approximately
10 visits are completed during a full term pregnancy (i.e., a pregnancy with duration of 37 to 42 weeks). Each visit usually includes a prenatal physical examination (e.g., maternal vital signs, fundal [uterine] height measurements, and fetal heart rate assessments) (American College of Obstetricians and Gynecologists & American Academy of Pediatrics, 2007; Varney et al., 2004). In addition, visits often include the collection of specific diagnostic screening tests (e.g., maternal blood testing for gestational diabetes and screening for anemia) and the ordering, or performance, of ultrasound imaging studies.

The traditional prenatal care model has been cited as being fragmented, overly complex and uncoordinated with cumbersome processes that waste resources and provides only limited contact for the patient with the provider (Institute of Medicine, 2001; Massey, Rising, & Ickovics, 2006). In 1989 an expert panel convened by the U.S. Public Health Service (USPHS) reported that the content and quality of prenatal care had not been sufficiently studied and recommended a redesign of prenatal care services (U.S. Department of Health and Human Services U.S. Public Health Service, 1989). Other national reports challenged perinatal professionals and planners to consider major changes of the traditional prenatal health care model. In 2001, the Institute of Medicine (IOM) convened a study group to examine the quality of health care services. A seminal report was published, *Crossing the Quality Chasm: A New Health Care for the 21st Century*, with recommendations or a “blueprint” to guide the redesign of the US health care system, including prenatal care services (Institute of Medicine, 2001). These recommendations included the following key elements: 1) health care is based on continuous healing relationships; 2) care is customized according to patient needs and values; 3) the patient is the source of control; 4) knowledge is shared and information flows freely; 5) decision making is evidence-based; 6) safety is a system property; 7) transparency is necessary, 8) needs are
anticipated; 9) waste is continuously decreased; and 10) cooperation among clinicians is a priority (Institute of Medicine, 2001, pp. 3-4; U.S. Department of Health and Human Services, 2000). The IOM’s recommendations for the redesign of health care were utilized by some perinatal health care planners and providers to create new prenatal care delivery systems such as CenteringPregnancy©, a standardized group prenatal care approach which has demonstrated some success in the improvement of perinatal outcomes.

**Prenatal Care Access**

In the US, access to prenatal care was improved in the 1980s when a new category of Medicaid (*Medicaid for Pregnant Women*) was developed to expand funding for perinatal services (Moos, 2006). The enrollment of all pregnant women into a system of prenatal care was promoted as a national policy by a 1985 IOM report to reduce the risk of LBW infants (Alexander & Kotelchuck, 2001). Other pregnancy-related services were created, for example the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), outreach services, and housing coordination to improve access to care and support services specifically for low-income, at-risk pregnant women to maximize healthy perinatal outcomes (U.S. Department of Agriculture, 2012).

**Prenatal Utilization (Attendance)**

An important national prenatal health care goal is to increase prenatal care utilization (attendance) rates (U.S. Department of Health and Human Services U.S. Public Health Service, 1989; U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion, 2015). Historically, a pregnant woman’s early and regular attendance at prenatal care visits has been shown to be beneficial to both the mother and her fetus (Alexander & Kotelchuck, 2001; Baldwin, 2006; Kotelchuck M, 1994; U.S. Department of Health and Human
Services U.S. Public Health Service, 1989). Prenatal care attendance rates have been linked to access to care issue and to consumer participation and satisfaction (Institute of Medicine, 2001).

The American College of Obstetricians and Gynecologists (ACOG) created a recommendation for adequacy of prenatal care as the attending of nine or more prenatal visits (American College of Obstetricians and Gynecologists & American Academy of Pediatrics, 2007). However, ACOG recommendations are rarely used by researchers as a standard to assess adequacy of prenatal care utilization (Alexander & Kotelchuck, 1996). In 1989, a USPHS expert panel on prenatal care proposed fewer visits than the ACOG recommendation and even fewer visits for pregnant women who had previously had a child, although these recommendations, as research indicates, have also not been used by researchers (Alexander & Kotelchuck). Currently, adequate prenatal care attendance is frequently defined by scores on Kotelchuck’s Adequacy of Prenatal Care Utilization Index (APNCU Index), which rates pregnancy-related care beginning in the first four months of pregnancy with the appropriate number of visits dependent upon gestational age (Alexander & Kotelchuck, 2001; Kogan et al., 1998; Office of Disease Prevention and Health Promotion & United States Department of Health and Human Services, 2000). The APNCU Index is based on two components of prenatal care: adequacy of the initiation of care (i.e., prenatal care begun in the first trimester) and adequacy of received services (i.e., number of prenatal visits and types of services received during prenatal care) (Kotelchuck, 1994). The APNCU Index was used by Healthy People 2020 for benchmarking its US objectives to increase the proportion of pregnant women who received prenatal care beginning in the first trimester to 77.9% and increase the proportion of pregnant women who receive early and adequate prenatal care to 77.6% (Centers for Disease Control and Prevention, 2012; U.S. Department of Health and Human Services, 2013; U.S. Department of Health and
Human Services. Office of Disease Prevention and Health Promotion, 2015). As of 2007 (the most current data available), only 70.8% of US women who are pregnant received early care and only 70.5% received early and adequate prenatal care with women of ethnic or minority status receiving less care (U.S. Department of Health and Human Services, 2013) (see Table 1).

**Problems with Reaching Hawai`i Prenatal Goals**

Key maternal and infant health risk indicators have not met Healthy People 2020 goals, particularly in Hawai`i (MacDorman & Mathews, 2008; Schempf et al., 2010; U.S. Department of Health and Human Services, 2013; Williamson et al., 2008) (see Table 1). In rural areas of Hawai`i, the lack of access to and adequate utilization of prenatal care has a more significant impact on adverse birth outcomes than in urban areas, where medical, social and public health services are more readily available to respond to emergent/urgent issues (March of Dimes, 2011; Schempf et al., 2010). Native Hawaiian women account for higher percentages of healthcare disparities in Hawai`i County (North Hawaii Outcomes Project, 2012) (see Table 2). According to the U.S. Office of Management and Budget, “Native Hawaiian” refers to persons who self-identify as having origins in any of the original peoples of Hawai`i (U.S. Department of Commerce Economics and Statistics Administration, 2010).

**First trimester care.** In Hawai`i, 78.8% of pregnant women attended prenatal care in the first trimester thereby meeting the Healthy People 2020 objective for 77.9% of pregnant women to receive early care (see Table 1). However, in rural Hawai`i first trimester prenatal care entry has not met Healthy People 2020 goals with a 2008 rate (the most current) of only 68.8% to 73.5% (see Table 1).

In Hawai`i, first trimester prenatal care entry data by maternal race and ethnicity reveal health disparities among Native Hawaiian women. Data from 2009 to 2011 indicate that 90% of
pregnant Caucasian women in Hawai`i access first trimester care, compared to 79.7% of Native Hawaiian women (Hawaii Department of Health, 2013) (see Table 6).

Socio-economic health disparities are also revealed in the data. In Hawai`i, from 2009-2011, 89.6% of pregnant women with private insurance started prenatal care in the first trimester, while only 71.92% of women enrolled in Hawaii QUEST (a Medicaid managed care program) received first trimester care (Hawaii Department of Health, 2013) (see Table 7). Thus even when women have QUEST, they are not accessing prenatal care early in their pregnancies.

**Both early and adequate care.** In 2000, 75% of pregnant women in Hawai`i received overall early and adequate prenatal care but in 2010, only 65.7% received this care, demonstrating a downward trend (National Center for Health Statistics, 2013) (see Figure 3). Overall, Healthy People 2020 prenatal goals have not been met in Hawai`i.

**Review of the Literature**

In this section, a review of the international and national prenatal care utilization literature (i.e., research that focused on barriers that prevent achieving prenatal care utilization) will be presented. Gaps in this literature will also be addressed. Moreover, what problems and which populations are studied and how they are studied are important concepts for this proposal and will be addressed as part of the literature review.

A second part of this section will discuss Hawaii-specific research literature that addressed prenatal care utilization. Identified gaps in this literature will also be discussed.

In the last part of this section, a summary of the review of the literature will be presented. The summary will include prenatal care utilization nationally and prenatal care utilization from a rural Hawai`i perspective. What and how prenatal utilization has been studied in Hawai`i was of particular interest.
International and National Studies

In recent series on midwifery in the Lancet (Renfrew et al., 2014) a meta-synthesis of world-wide qualitative studies was performed addressing the experiences of low-risk pregnant women with their pregnancy care. Thirteen metasyntheses were identified representing 244 qualitative studies. These were examined, and analyzed. The focus of the 13 reviews included: Migrant women’s perceptions of their pregnancy care, lesbian women’s experiences, postpartum depression help-seeking barriers, motherhood for women with mental illness, women’s experiences of traumatic birth, weight management during pregnancy experiences, vaginal birth after caesarean section experiences, breast feeding support experiences, and large body-mass index experiences. Three of these metasyntheses focused on experiences of low-risk pregnant women in general as recipients of prenatal health care services (representing 69 studies): 1) low obstetrical risk women who had already experienced midwifery-led care (eight studies; three in the US [all three were post delivery interviews about care in a birth center]); 2) patient perspectives on intercultural caring in maternity care (40 studies, nine studies in the US [samples included Hispanic, Somalian refugee, African American, and Japanese women]); and 3) reasons for non-use of antenatal services for low and middle income countries (21 studies, none in the US).

One of the study aims of the 13 metasyntheses was to report women’s views and experiences of maternal and newborn care. In summary, women’s views and experiences showed the inter-relationships between the different components of quality care.

“Women reported that information and education were essential to allow them to learn for themselves, that they needed to know and understand the organization of services so they could access them in a timely way, that services needed to be provided in
a respectful way by staff who engendered trust and who were not abusive or cruel, and that care should be personalized to their individual needs, and offered by care providers who were empathic and kind. Particularly, women wanted health professionals who combined clinical knowledge and skills with interpersonal and cultural competence. These findings were of crucial importance in identification of components of quality maternal and newborn care” (Renfrew et al., 2014, pp. 1-8).

One of the metasyntheses that addressed reasons for non-use of antenatal services for low and middle income countries was entitled Why do women not use antenatal services in low- and middle income countries [LMIC]? A Meta-Synthesis of Qualitative Studies (Finlayson & Downe, 2013). The search strategy used for this metasyntheses looked for qualitative studies exploring the antenatal experiences, attitudes, and/or beliefs of women from LMIC who had accessed antenatal care late, infrequently, or not at all. Twentyone papers, representing views of over 1200 women from 15 countries (none from the US) were reviewed. Three themes were identified: “pregnancy as socially risky and physiologically healthy”; “resource use and survival in conditions of extreme poverty” and “not getting it right the first time”. A dissonance was described between program design and cultural contexts that “could restrict access and discourage return visits” (p. 8). “Centralized risk-focused antenatal programs may be at odds with the resources, beliefs, and experiences of women who underuse antenatal services” (p. 8). The conclusion from this metasynthesis was that if program delivery (i.e. the model of prenatal care) is not aligned with local context, even the best and most physically accessible services may remain underused.

Another large integrative literature review on women’s experiences of prenatal care was analyzed (Novick, 2009). The purpose of the review was to develop an understanding of
women’s prenatal experiences including how women define their own needs and which aspects of prenatal care meet their needs. The review synthesized research published on the topic of women’s experiences of prenatal care. Studies from English language countries dating from 1997 to 2008 (N=36) were included in the review. Many of the participants in the studies were from low income and racial or ethnic minority groups (Latina or African American). The women reported impersonal treatment, long waits, and inadequate information. The review indicated that women were often disappointed or frustrated with prenatal care, yet accepting of it. Novick (2009) discussed how this could be a function of the women’s limited exposure to alternatives. Women may not complain about their prenatal care experiences, believing that they must continue to have prenatal care (regardless of the inconvenience or dissatisfaction that they might experience) in order to do what they believe will insure that they have a healthy baby. These factors may lead to women choosing to remain silent about their disappointment or frustration about their care contributing to a lack of public awareness regarding the negative prenatal care experiences some women have. The most critical finding of the review was the limited evidence regarding women’s overall experiences of prenatal care. An important implication of the study was the need for additional research on the topic, specifically detailed research to gain an understanding of perinatal issues that “matter to women” (p. 235). Conducting focus groups, interviews and surveys have the potential to identify issues that are important to pregnant women. “First and quite simply, clinicians should ask women directly about their own needs and preferences, and modify care accordingly” (p. 235). Many of the 36 studies reviewed by Novick used questionnaires and surveys (e.g., forced-choice, fill in the blank, short response, Likert-scales, and predetermined lists [from which women would chose answers]);
while some study designs used focus groups, telephone interviews, computer assisted telephone interviews, and semi structured interviews.

Among the 36 studies in the Novick review were two qualitative grounded theory method studies, one from Australia and the other from Canada. The purpose of the Australian study conducted by Schneider (2002) was to describe women’s experiences and perceptions of prenatal care during their first pregnancies. The participants (N=39) were from Melbourne, Australia, and were mostly from Anglo-Saxon ethnic backgrounds. The authors concluded that women’s experiences were varied and diverse. Satisfaction with prenatal *education* rather than prenatal *care* was a priority for these women.

The purpose of the Canadian study conducted by Sword (2003) was to reveal basic psychosocial processes underlying prenatal care usage behavior. Participants (N=26) were from two regions in Ontario, Canada. Ethnic demographic data were not described. Research findings from this study suggested that the involvement in prenatal care by the women was facilitated when the content was comprehensive, flexible, and responsive to the women’s needs. Women viewed themselves as worthy of quality care and felt betrayed when service providers acted in ways that threatened their concept of self. *Taking care of oneself* was the overarching concept women used in regards to prenatal care usage and *weighing the pros and cons* and *taking charge* were strategies the women employed when making decisions about prenatal care usage (Sword, 2003). This study is limited in its usefulness for a US population because Canada has a socialized medical system which makes any comparisons between the two countries problematic.

In the US research on prenatal care is often about maternal behaviors that might adversely affect health outcomes (e.g., smoking and substance abuse) (Massey et al., 2006;
Novick, 2004; Suellentrop et al., 2006). Other studies have focused on women with known abnormal or complicated perinatal situations (e.g., women who received abnormal pregnancy diagnoses [e.g., HIV infection, evidence of genetic markers associated with adverse fetal outcomes, gestational diabetes], women with pregnancy loss, adolescents, widowhood during pregnancy, and abused pregnant women) (Côté-Arsenault & Donato, 2007; Doherty & Scannell-Desh, 2008; Hedrick, 2004; Lutz, 2005). The experiences of low-risk pregnant women as recipients of prenatal health care services are seldom addressed in the literature.

Ethnic disparities in prenatal outcomes in the US are well documented (Hawaii Department of Health, 2013; March of Dimes, 2011; Schempf et al., 2010; U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion, 2015), yet little attention has focused on the voices of ethnic or minority women regarding their prenatal care experiences. Of the 36 articles in the Novick review, sample criteria resulted in the inclusion of articles about women who represented at least 10% of the US population. Asian Americans and Pacific Islanders who constitute less than 10% of the US population were, therefore, not included in Novick’s study.

Research about pregnant women in the ‘general’ population (those who have and are anticipated to continue to have normal pregnancy outcomes) and their personal expectations and experiences of prenatal care are limited. Women’s experiences with prenatal care are studied but often by recruiting women with prenatal problems; not samples of normal, low-risk women. Some minority populations (e.g., Pacific Islanders) who fall below a set percentage of the US population might not be included in national studies. Studies about pregnant women often utilize surveys or questionnaires that could potentially limit the types of data obtained if more in-depth methodologies had been utilized. Research about pregnant women’s “day-to-day” lives in
relation to their prenatal care expectations and experiences could be a valuable perspective for perinatal researchers and clinicians for improving utilization of prenatal care.

**Prenatal Care in Hawai`i**

A recent unpublished literature review of prenatal care research in Hawai`i was completed by the author using CINAHL, PUBMED databases and included the keywords: prenatal care, Hawai`i, antepartum care, and pregnancy (see Appendix A). A total of 17 research articles were found. In most of these studies, perinatal and perinatal ethnic disparities in Hawai`i, specifically in the rural areas, were found.

Many of the studies in the review revealed that, even when prenatal care is available in rural settings in Hawai`i, prenatal care by itself might not be enough to overcome risks associated with rural health and ethnic disparities. Adverse birth outcomes are closely tied to socioeconomic disparities and ethnicity in rural areas and may indicate more about additional unmet needs of the populations to whom the interventions are addressed than about the efficacy of the interventions themselves (Behrman, 2007). Health disparities for Native Hawaiian women in rural areas of Hawai`i include: Increased percentages of unintended pregnancies, preconception obesity, smoking during pregnancy, and preterm births (North Hawaii Outcomes Project, 2012) (see Table 2).

In discussing the failure of some interventions to show improvement of outcomes in Hawai`i (e.g., prenatal care utilization rates) one group of researchers noted: “[Perhaps] care provided was not attentive enough to the cultural needs of the women which may have increased the occurrence of non-compliance with the scheduled follow-up” (Baruffi et al., 1998, p. 415). Other researchers discussing health care disparities of Native Hawaiian women in rural Hawai`i stated “(Native) Hawaiian women are not engaging in western
Public health professionals may need to focus on maximizing support services that are culturally competent for women…” (Todd & Peabody, 2004, p. 44).

In an ethnographic study by Affonso, et al., (1993), a focus group design was utilized to describe stressors experienced by pregnant women from three different ethnic groups (Native Hawaiian, Filipino, and Japanese) in a rural setting. The researchers recommended using this information about stressors to help inform more culturally sensitive prenatal care services. Culturally sensitive perinatal health care interventions in three studies (Affonso, De, Korenbrot, & Mayberry, 1999; Affonso, Korenbrot et al., 1999; Tsai, Nakashima, Yamamoto, Ngo, & Kaneshiro, 2011) were associated with improved perinatal health outcomes.

In a pilot study entitled “Listening to Women: Prenatal Concerns of Women in Hawai`i” (Manant & Dodgson, unpublished), prenatal concerns of women living in Hawai`i were assessed using state-wide Pregnancy Risk Assessment Monitoring System (PRAMS) data. The study was a cross-sectional retrospective content and demographic data analysis of PRAMS data collected from 2000 to 2003. Comments (N=269) regarding women’s experiences with pregnancy and prenatal care were analyzed. The results described the experiences reported by women living in Hawai`i that enhanced or prevented health-promoting behaviors and revealed environmental or social issues that supported or discouraged healthy behaviors. This research uncovered common concerns of these women from the standpoint of the women themselves (i.e., an emic perspective) (Denzin & Lincoln, 2005). Five categories emerged from the study: 1) Facing Health Issues 2) Experiencing Health Services 3) Feeling Unsuccessful 4) Being Left Out and 5) Relating to Family and Friends.
The findings of these and future studies that focus on the perceptions of mothers about their prenatal health care expectations and experiences have the potential to impact prenatal care policies and programs that are based on the needs identified by the populations served. Prenatal care utilization is vital and there is much that needs to be done to help women engage in their care, especially strategies that will foster their continued utilization of that care.

**Theoretical/Conceptual Frameworks**

Using theoretical frameworks helped guide researchers and allowed for new or undisclosed considerations as prenatal health issues are reframed and refined (Polit & Beck, 2006). During data analysis, the author utilized these frameworks to identify and categorize data. For the purposes of research to describe pregnant women’s expectations and experiences of prenatal care, the social ecological model and feminist theories were used to provide a foundation for exploring the data. Being knowledgeable about the social ecological model and feminist theories meant that the researcher was sensitive to the way data was viewed, for example, social structures, such as gender, race, and class, can influence social processes or social conditions (Charmaz, 2005; Wuest, 2007, p. 247). A summary of each of these theoretical frameworks is presented in the following sections.

**Social Ecological Model**

The social ecological model is a theoretical framework that is characterized by a broad contextual scope in examining health care issues, including perinatal health (Stokols, 1996, 2000). The social ecological model frames health issues in a comprehensive way that addresses the interdependence among socioeconomic, cultural, political, environmental, organizational, psychological, and biological determinants of health and illness (2000). This perspective places the people in the context of their own lives while evaluating the determinants of health and
illness in a particular group. The social ecological model was an advantageous perspective for analyzing issues about women’s expectations and experiences of prenatal care. A research guideline based on this theoretical framework was used during the data analysis phase of this study (see Appendix B).

**Feminist Theories**

Feminist theories are also applicable in framing research for women’s health. Central to feminism is the concept of collaborations and non-exploitive relationships with those being researched, avoidance of objectification, and the mutual creating (co-creating) of knowledge (Polit & Beck, 2006). The purpose of feminist research is to provide information for women, not to provide information just about women (Andrist, 1997). Andrist (1997) and later Yuill (2012) explained important feminist concepts to utilize when studying women’s health issues: 1) inquiry (research) and practice begin from the standpoint of women as definers of their own experiences; 2) the structural power relationship in health care (e.g. patient to doctor) has typically been hierarchical, based on patriarchal models; 3) women are relational beings, acting in the world within the context of relationships; therefore, women’s decisions about health care are affected by the responsibilities of their relationships; 4) women objectify their bodies creating a mind/body split which can lead to locating women’s problems in their bodies which can deflect attention to psychological and emotional issues as well as deflect attention to even broader sociopolitical influences; and 5) the personal is political, meaning changes in a person’s consciousness can lead to societal transformation. A framework that incorporates feminist theory was used as a strategy for analyzing data (Low & Schuiling, 2013)(see Appendix B). Questions that the investigator considered when analyzing data from a feminist theoretical perspective included the following: Are women really victims of social constraints or the biomedical
paradigm or are they acting with agency? Are individuals making choices despite positions of powerlessness? Are the choices allowing individuals to remain in control or do they allow for some other form of power in the context of the situation? (2013)

**Summary of Review of the Literature**

Attaining the maternal and newborn health indicators established by Healthy People 2020 remains a challenge – nationally and in the state of Hawai`i (Suellentrop et al., 2006; U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion, 2015). Prenatal care is associated with improved perinatal outcomes; however, it is often underutilized by women, particularly ethnic or minority women living in rural areas. Furthermore, the reasons for the underutilization of prenatal care, specifically in rural areas of Hawai`i, are poorly understood.

Gaps exist in the scientific literature about what women’s expectations and experiences of prenatal care are as stated in their own words (Finlayson & Downe, 2013; Novick, 2009; Proctor, 1998; Sword, 2003; Young, 1998). The expectations and experiences of pregnant women as recipients of prenatal health care, from the viewpoint of the women themselves, were seldom addressed in the literature. The majority of research on the utilization of prenatal care in Hawai`i used quantitative designs with retrospective, vital statistic data. Few contextualized research studies have been done in Hawai`i that provide strategies to address rural disparities in the utilization of prenatal care (Affonso, Korenbrot et al., 1999; March of Dimes, 2011; Mayberry, Affonso, Shibuya, & Clemmens, 1999).

By using an emic approach, this study uncovered common concerns of women from the standpoint of the women (Denzin & Lincoln, 2005). The researcher was interested in this
perspective because it had the potential to add to the knowledge about perinatal issues from the patients’ perspectives that might impact health care outcomes.

A basic precept about health care research is careful attention to the identification and selection of an issue; health care research is ultimately concerned with bringing about change that will promote the health and well-being of individuals and the community in which they live (Polit & Beck, 2007). The process of selecting a research issue to investigate should, therefore, also involve dialogue about if and how research on the issue under consideration could ultimately help bring about healthier conditions for individuals and their communities (Minkler, 1999). Consequently, dialogue with the individuals of a community of interest is integral to this process. This highlights the importance of the choice to use a qualitative descriptive design to study the ways women view prenatal care to develop interventions to improve prenatal care which could ultimately improve perinatal outcomes.

Research focusing on identifying and solving problems of suboptimal maternal and newborn health outcomes provides an opportunity to “start where the people are” (Minkler & Wallerstein, 2003, p. 137). The use of a qualitative descriptive design allowed the investigator the ability to describe the socially constructed nature of women’s realities and the situational (contextual) constraints that shape their experiences (Olesen, 2005). More specifically, knowing that national health objectives are not being met in rural Hawai`i is different from learning why these objectives are not being met from the personal stories of the women themselves.

As a result of the gaps that were identified in the existing scientific literature, research questions were developed that included: 1) What do pregnant women living in rural areas of Hawai`i expect from prenatal care? and 2) Are these women’s expectations about prenatal care being met? A third question (What are women’s experiences of participating in a research study
about prenatal care?) was asked to find out about the women’s experiences and perceptions about participating in this study.
CHAPTER 3. METHODOLOGY

The purpose of this chapter is to describe the methodology that was used to answer the research questions. Based on the research questions, a qualitative descriptive design was an appropriate method. Initially, grounded theory was the planned approach to answering the research questions; however, due to the small number of participants a qualitative descriptive design was employed to analyze the data collected in order to identify themes among the participants.

Purpose

The purpose of this study was to describe the expectations and experiences of prenatal care of pregnant women living in rural Hawai`i in order to enhance a community’s and its health care providers’ (HCPs) provision of prenatal care services to this group of women and to ultimately improve perinatal outcomes. This study was a result of an identified gap in the existing literature about the lack of input about prenatal health care services from pregnant women living in rural Hawai`i.

Research Questions

The research questions that this study addressed were:

1) What do pregnant women living in rural areas of Hawai`i expect from prenatal care?
2) Are these women’s expectations about prenatal care being met?
3) What are women’s experiences of participating in a research study about prenatal care?

Study Design

A qualitative descriptive design provided the most appropriate approach to answering the research questions because this design allowed for the collection of data and analysis of the
women’s expectations about and experiences of prenatal care. This approach focused on the emic perspectives of pregnant women living in rural Hawai`i.

Qualitative description is especially amenable to obtaining straight and largely unadorned (i.e., minimally theorized or otherwise transformed or spun) answers to questions of special relevance to practitioners and policy makers. Examples of such questions include: What are the concerns of people about an event? What are people's responses (e.g., thoughts, feelings, attitudes) toward an event? What reasons do people have for using or not using a service or procedure? Who uses a service and when do they use it? What factors facilitate and hinder recovery from an event? (Sandelowski, 2000, p. 337)

When conducting qualitative studies, researchers’ pre-understandings (i.e., assumptions or biases) can shape a project; therefore, these pre-understandings need to be made explicit in order to prevent the researcher’s assumptions or possible biases from influencing data analysis (Charmaz, 2005). In Appendix C. Presumptions about Participants: A Researcher’s Viewpoint, the researcher clarified her pre-understandings. Four general areas were examined: 1) How women might view their health; 2) how women weigh the benefits of prenatal care in their decisions; 3) how women might encounter and be affected by barriers to healthcare, and 4) how women participants in a study might act or be influenced during an interview.

The study used a cross-sectional, purposive sample, specifically women who were pregnant for the first time and seeking or already enrolled in prenatal care. As a result of the analysis of the data collected, themes about the common experiences and perceptions of the women emerged.
Setting

The setting for the study was the Island of Hawai`i (often referred to as the “Big Island”). Hawai`i County encompasses all of the Island of Hawai`i and is considered a rural county. Rural areas in the state of Hawai`i make up most of the Hawaiian Islands except for the island of Oahu. The selection process to locate this study in this region was the researcher’s prior use of PRAMS data and other vital statistic data showing health disparities on the Island of Hawai`i. The researcher worked on the Island of Hawai`i in 2009 as a nurse educator at the University of Hawai`i, Hilo School of Nursing and is currently employed as a provider of midwifery care in the North Hawai`i region. The researcher was familiar with a variety of points of service for pregnant women in the region and had maintained professional relationships with key people within the community to help recruit participants for this study. Although working in a community under study introduced a study limitation, careful attention was given and addressed by the researcher regarding her role as a provider of prenatal care and her role as a researcher within the selected community. Prenatal patients of the researcher were excluded from being participants in the study.

Island of Hawai`i. The County of Hawai`i encompasses the Island of Hawai`i, which is the southeastern most and largest island of the Hawaiian archipelago. The land area of the County is approximately twice the combined land area of all the other islands of the State. The Island of Hawaii has a diverse climate, topography and scenic beauty. Environments include dense tropical forests; snowcapped mountains; active volcanoes; black, white, and green sand beaches; deeply eroded valleys; and large expanses of grazing land. The island has nine districts; each of the nine districts provides a variety of settings for human activity, land and resource
utilization, or wilderness areas of minimal human intrusion (State of Hawai`i Department of Business Economic Development and Tourism, 2014).

The island of Hawai`i is the youngest island in the chain and was formed by five volcanoes, two of which are still active (Mauna Loa and Kilauea). It is known as the "Big Island" and as the "Orchid Isle". With a land area of 4,028.4 square miles, it is almost twice the combined size of the other islands. Ka Lae, also known as South Point, is the southernmost point in the United States. Mauna Kea, which rises 13,796 feet above sea level, is the world's tallest mountain when measured from the ocean floor. It is often snowcapped in winter. The island flower is a red blossom called pua lehua. The average daily temperature in Hilo is 71.2° F.; in Kailua-Kona, 73.1° F. Mauna Kea summit temperatures range from 31° to 43° F. Average annual rainfall at Hilo Airport is 131 inches; near Kawaihae, 10 inches.

The County of Hawai`i has many industries such as agricultural, tourism, eco-tourism, diversified agriculture and aquaculture, astronomy, high technology, renewable energy, and health and wellness.

Agriculture has played an important role in the County's economy. In the late 1700's, Hawaii's agricultural industry began by provisioning visiting ships. During the 1800's, sugar production and cattle ranching emerged as leaders of the modern agricultural industry. These industries dominated the island's economy and social fabric well into the 1900s. The 1980's and 1990's saw the demise of sugar cultivation and the steady decline in cattle production. These once dominant industries have been replaced by fully diversified agriculture including flowers and nursery products, coffee, macadamia nuts, tropical fruits, vegetable crops, orchards, aquaculture, and forestry. Import replacement and expansion of export products and markets are increasing. The three leading agricultural industries within the County are flowers and nursery
products, vegetables, and macadamia nuts. Combined, these three agricultural industries accounted for over 50 per cent of the total value of agricultural production in the County in 1997. When compared statewide, the County of Hawaii produces 35 per cent of fresh vegetables, 72 per cent of bananas, 30 per cent of coffee, 95 per cent of macadamia nuts, and 51 per cent of flowers and nursery products. Agriculture’s future remains favorable with the strong diversification and development of new export protocol and technology.

Within the past forty years, tourism has emerged as the primary economic activity on the island. While the tourist industry is expected to continue growing, it has matured to a point where healthy growth will demand a reinvestment into the infrastructure supporting the visitor industry. The County must continue to preserve, protect and enhance the unique qualities of the Big Island and promote the island as a vacation and business destination to respond to growing competition from tourist destinations around the world.

The County is responsible for the general welfare of its residents and to ensure that adequate health services are provided. Actual planning of health programs and facilities is the direct administrative responsibility of the State of Hawai`i.

The Island of Hawai`i (Hawaii County) consists of nine districts (see Figure 4). The following are descriptions adapted from a variety of resources and reports about the Island of Hawai`i and these nine districts.

**Population.** Currently, the US population is 315,283,212 (United States Census Bureau, 2013). In 2013, the total population of Hawai`i State was 1,404,054, the total population of the Island of Hawai`i was 190,821 (North Hawaii Outcomes Project, 2012; State of Hawai`i Department of Business Economic Developement and Tourism, 2014; United States Census
Bureau, 2013) (see Table 4). The Island of Hawai`i and all of its districts are considered rural by standard U.S. States Census criteria (United States Census Bureau, 2012).

**Birth rate.** In 2011, the number of births in the US was 3,953,593 and the number of births in Hawai`i was 18,972; in 2008, the number of births in Hawai`i County was 2,350 (Hamilton, Martin, & Ventura, 2012; Hawai`i PRAMS, 2011).

**Age.** The age distribution in Hawai`i County is similar throughout the state: 22.8% Youth under 18 years; 62.7% Adult (18 to 64 years) and; 14.5% Seniors (65 plus years).

**Ethnicity.** In 2010, Hawai`i County ethnicity percentages differ from the state (see Table 5). Ethnicities with higher percentages in Hawai`i County compared to the state are Native Hawaiians (30% vs. 25.3%) and Caucasians (30% vs. 20.8%). An ethnicity with a lower percentage in Hawai`i County compared to the state is Japanese (14.4% vs. 24.0%).

**Socioeconomic status and health insurance.** Hawai`i County has more than one third of its population (35%) with an income at or below 200% poverty level compared to 21.9% for Honolulu County (Oahu) (North Hawaii Outcomes Project, 2012). In 2010, 14.7% of adults in Hawaii County were medically uninsured compared to 9.2% for Honolulu County (Oahu) (North Hawaii Outcomes Project, 2012).

**Provider shortage.** Hawai`i County is a federally designated medically underserved population area (U.S. Department of Health and Human Services, 2012) indicating that many population groups on the island have documented economic, cultural, linguistic, and geographic barriers to accessing health care.

Many areas of the County are designated as health professional shortage areas, indicating that significant healthcare professional shortages exist in primary care, mental health and dental care (U.S. Department of Health and Human Services, 2012). Hawai`i County has 14% of the
state’s population but only 10% of the state’s licensed physicians. Based on the 2012 *Physician Workforce Study*, Hawai`i County had a shortage of 175 physicians (Hawaii/Pacific Basin Area Health Education Center, 2010; Withy & John A. Burns School of Medicine Area Health Education Center, 2013).

**First trimester care.** In 2008 (the latest data), only 73.5% of pregnant women in Hawai`i County received prenatal care in the first trimester (see Table 2), below the Healthy People 2020 goal of 77.9% of pregnant women receiving prenatal care in the first trimester.

**Infant mortality and preterm birth rate.** According to Healthy People 2020, infant mortality and the preterm birth rate are indicators of pregnant women’s access to high quality healthcare. In 2009, the Hawai`i County infant mortality (i.e., infant deaths per 1000 live births) was 6.9, higher than the state’s rate of 5.9 (North Hawaii Outcomes Project, 2012). Data from 2010 showed a preterm birth rate in the state of Hawai`i of 12.2% (National Center for Health Statistics, 2013). Women in Hawai`i County in 2008 had a 10.5% preterm birth rate, one of the higher rates in the state of Hawai`i (Hawai`i PRAMS, 2011).

**Prenatal care and birth services.** According to the 2012 *Physician Workforce Study*, Hawai`i County has 17.63 obstetrician/gynecologists (full time equivalencies) and, based upon their provider to population ratio calculations, has a need of 10.37 more clinicians to adequately address women’s obstetrical/gynecological care (Hawaii/Pacific Basin Area Health Education Center, 2010; Withy & John A. Burns School of Medicine Area Health Education Center, 2013). Supplemental maternity services in Hawai`i County include: WIC (U.S. Department of Agriculture, 2012), maternal/newborn program services offered by the Hawaii Department of Health, Maternal and Child Health Program, and Tutu’s House (Friends of the Future, 2009). The lack of providers leaves many pregnant women without access to needed prenatal services.
However, access is only a part of the problem of not having achieved Healthy People 2020 goals. Underutilization of those services that women can successfully access also contributes to perinatal problems.

The following are descriptions adapted from Hawai`i County Department of Planning reports about the Island of Hawai`i and the nine districts and their health care services (Hawai`i County Department of Planning, 2014).

Currently there are six licensed community hospitals operating on the Big Island in: Hilo, Kona, Honokaa, North and South Kohala, and Ka`u (see Table 8). Together these six hospitals make up the Hawaii County Network Public Facilities (see Figure 5). The island's geography and population distribution determine the roles played by each community hospital. Hilo Medical Center (HMC) is the major referral center and key support for emergency services, specialty care (including obstetrical services), and long-term care. HMC was completed in 1985 and was intended to provide major care for the Puna, South Hilo, and North Hilo Districts. Located within the city of Hilo is the Department of Health and Department of Social Services and Housing district offices that provide public health and health care services. A variety of voluntary agencies and organizations providing health education, healthcare support, nutrition, and other specialized services are also located in Hilo.

The Honokaa Hospital built in 1951 was replaced in 1995 and renamed Hale Ho`ola Hamakua and administered by the Hawaii Health Systems Corporation. Hale Ho`ola Hamakua provides long term care and some emergency services. The Hamakua Health Center, a nonprofit community health center, provides outpatient medical care services for Honokaa and the Hamakua district. Hale Ho`ola Hamakua does not provide maternity care. The Hamakua Health
Center also does not provide maternity services but refers women who are pregnant to maternity providers in Waimea or in Hilo.

Kohala Hospital in Kapaau was completed in 1963. This facility provides acute, skilled nursing and intermediate care, as well as emergency room, laboratory, and x-ray services to the district of North Kohala. Kohala Hospital also does not provide comprehensive maternity care but serves as a referring agency.

North Hawaii Community Hospital, an affiliate of Queens Health Systems (NHCH) located in Waimea provides both acute and emergency care services to the districts of South Kohala and Hamakua. NHCH which includes the Lucy Henriques Medical Center, is a private, full-service, acute care facility. Maternity care providers (those who provide on-going, comprehensive prenatal care) in North Hawai‘i are: The providers of North Hawaii Medical Group/Waimea Women’s Center (certified nurse midwives [4], obstetrician/gynecologists [3 full time equivalents]), and one private practice family physician.

Kona Community Hospital (KCH) is a full service hospital located in Kealakekua. KCH provides surgical care and specialty care including obstetrical services, emergency care, outpatient, and long-term care. Outpatient and ancillary services include a 24-hour emergency room, laboratory, radiology, pharmacy, occupational, physical, respiratory and speech therapy, and dietary services. The hospital was constructed in 1975, and has undergone numerous renovations. An ICU and expanded operating room area were added in 1990. In 1998-99, the obstetric unit was remodeled, emergency department renovated, and supply and admissions areas expanded.

Ka‘u Hospital, located in Pahala, was completed in 1979. Ka‘u Hospital provides long-term care and minor acute care, emergency room, ambulance, and outpatient
services. A public health center is also located in Naalehu. Ka’u Hospital does not provide maternity services and refers patients to obstetrical providers in the Kona area.

Approximately twelve “midwives” (with a variety of educational backgrounds including Certified Nurse Midwives, Certified Professional midwives, an RN midwife, and others) provide home birth services in the County of Hawai`i.

Compared to many regions in the US and in the state of Hawai`i, the Island of Hawaii has: A low per capita income, high numbers of uninsured people, a low ratio of physicians to population, and many maternal healthcare disparities. Native Hawaiian women, who make up a large percentage of the population, carry the burden of many of these health disparities (Hawaii Department of Health, 2013; North Hawaii Outcomes Project, 2012). This study looked at the expectations and experiences of prenatal care from the perspective of women living on the Island of Hawai`i.

**Sample**

The sample of women for this study was first time pregnant women living on the Island of Hawai`i. Inclusion criteria for the study were pregnant women who were: 1) at least 20 years old; 2) English speaking; 3) preferably early in their pregnancies (prior to 20 weeks gestational age); and 4) considered low-risk by customary obstetrical criteria. Native Hawaiian women were specifically sought out for recruitment for this study in order to hear from this population since they comprise a substantial number of the childbearing women in the region as well as having significant health disparities.

Exclusion criteria were women: 1) who already had experienced prenatal care during a prior pregnancy; 2) who were less than 20 years of age; and 3) were prenatal patients of the researcher. Women who had completed a pregnancy and received prenatal care previously were
not included in order to eliminate bias from those who have already developed expectations and experiences of prenatal care based on prior prenatal care services. Because pregnancy and early parenthood impacts both the adolescent mother and her child throughout the life course differently than adult women both physically and emotionally (Klima, 2003; Sangalang & Rounds, 2005), excluding adolescents (women under 20 years old [using standard demographic criteria]) from the study permitted the study focus to be on adult women only.

Initially, only low-risk women were sought out as participants. However, if a participant became high-risk during the study, her participation in the study could continue if she decided to remain in the study. Prenatal patients of the researcher were excluded from being participants in the study to prevent bias in the study.

**Protection of Human Subjects**

Prior to recruitment or initiation of study activities, approval was obtained from the Committee on Human Studies (CHS) of the University of Hawai`i, Mānoa (UHM) as well as approval from community agencies that were approached for recruiting eligible pregnant women for the study. Recruitment within community agencies included complying with their mechanisms for the protection of human subjects in research studies and sharing the approved UHM CHS proposal with them. A letter for approval from UHM was made available depending on the agency’s requirements.

Confidentiality of women was maintained at all times. During the initial contact between the researcher and a pregnant woman, the study was explained to the woman and her eligibility to participate in the study was confirmed. Subsequently, informed consent was obtained (see Appendix D) during a face-to-face meeting between the woman and the researcher that took place in a private or public setting designated by the woman prior to the initial study interview.
Once consented, each participant received a study identification number that was used for all data collection and analysis procedures during the study. Study materials and data that were collected were kept in a confidential locked file accessible only to the researcher. All research materials will be destroyed after the completion of the study per current UHM CHS requirements.

**Recruitment and Enrollment**

Pregnant women meeting the study’s eligibility requirements were contacted through known key community representative or individuals (e.g., health care providers, community leaders, church leaders) to see if they wished to participate in the study. An UHM CHS approved flyer and letter describing the study and its eligibility requirements were given to key community people (see Appendix E) as needed. Women interested in participating in the study contacted the researcher using a confidential phone number; or, if a woman preferred, the key community person provided the researcher with a woman’s contact information. In addition, as the study progressed, a snowball sampling of other women was possible (e.g., women telling their family or friends to contact the researcher with the use of the flyer). Confidentiality of women was maintained at all times. A modest gift card of $20.00 to be use at a local business was given to each participant at the start of the interview to acknowledge their time spent in the study.

**Interview Guide**

A detailed interview guide was developed (see Appendix F).

Places where interviews occurred depended upon each participant and were chosen by them. The places were convenient to participants but allowed privacy in order to maintain confidentiality. Interviews were face-to-face, unstructured, and open ended. The gift card was given to the participant at the beginning of the interview. Generic demographic data was
gathered at the beginning of the interview including: The participant’s age, zip code, race/ethnicity, how many times the participant had given birth, the estimated due date, and her health care insurance coverage. The main study questions that the participants were asked were: How do you see prenatal care; what is it? What do you expect from prenatal care? Are your expectations being met? How was it for you to participate in a research study about prenatal care? Alternative ways of asking the study questions were used to facilitate responses to the research questions (see Appendix F). The focus of this study was not exclusively about the prenatal care received by pregnant women (although some women did report on this) but rather on what participants’ expectations were about prenatal care and if these expectations were being met. The researcher tried to capture the natural language of the participants, and attempted to confirm that the participants’ stories (i.e., responses) were understood as accurately as possible by using redundant questioning or through the use of probes.

Data Collection and Storage

Each interview was dated and timed and a record kept. To maintain integrity of confidential data, participants were identified by their study identification number for demographic data that was collected and the audio-taping and transcription of interviews; computer data and analysis was protected using codes. Audio recording were transcribed by a reliable transcription service and the transcriptions were kept by the researcher in a locked filing cabinet. Consents and contact information were kept in a separate locked filing cabinet from the data collection materials. Only the researcher had access to these locked files.

Data Analysis and Rigor

Interview data were collected via audio-taping and note taking by the researcher and subsequently transcribed and analyzed. Transcriptions of the audio-taped interviews were
downloaded into Atlas.ti version 7.0.91 qualitative software (Scientific Software Development GMbH, 1993-2007) to facilitate the analysis of the contents of the interviews. Destruction of the collected data, identifiers and code numbers took place after completion of data analysis in accordance with UHM CHS requirements.

The researcher’s approach to the analysis included reviewing the transcripts and notes in detail followed by descriptive, open coding that proceeded toward more interpretive coding and categorizing. The researcher kept memos about the data analysis, including definitions of the codes, and a reflective journal during the research study to maintain integrity about the women’s interpretations and prevent the researcher’s pre-understandings, assumptions, and possible biases from influencing data analysis. The procedure was an iterative process to attain clarity and identify redundancies thereby achieving confidence in the data analysis. (Wuest, 2007).

During the analysis, process review and independent coding was conducted by a content expert, a member of the dissertation committee with experience in qualitative methodologies. Debriefing sessions were held between the content expert and the researcher to compare the codes, as well as to discuss the categories and the themes that the researcher was developing. In addition, the researcher used the theoretical frameworks described in Chapter 2 (Social Ecologic Model and Feminist Theories) to help guide the identification and categorization of the data (see Appendix B).

Maintaining rigor or trustworthiness was also accomplished by using ongoing linking of emerging themes with interview data, keeping memos about each decision related to the analysis of the data and reflections on the process, and review of the coding with other researchers (Guba & Lincoln, 2005; Miles & Huberman, 1994). This served to provide an audit trail about the process of the analysis. Descriptions of human experience are credible (trustworthy) if readers
recognize the experience presented as something they may have encountered after having read
the participant’s words (Guba & Lincoln, 2005). Rigor in the interpretive process also requires
that the interpreter listen for and make sense of silences or stories that were expected to occur but
did not (Guba & Lincoln, 2005). Validation of results (meanings) was done by offering
reflections of understandings to participants during the interviews by asking for participants’
comments on the researcher’s interpretations as often as possible. In addition, a secondary
validation with study participants could have taken place (a secondary interview of participants
to review original findings); however, this was not necessary for this study.
CHAPTER 4. RESULTS

The methodology used for this research project was presented in Chapter 3. This chapter presents the results of the data analysis.

Participants

The participants for this study consisted of three women living on the island of Hawai`i who were referred to the researcher by a home birth provider (see Table 9). Two of the women were from the South Kohala district and one was from Hilo. These women were already planning home births and had already engaged in prenatal care when they agreed to participate in the study. All of the women were Caucasian and their ages were 24, 31, and 33. All of the women had health insurance coverage.

Data Analysis Process

The interviews ranged from 23 to 42 minutes duration. The interview data were collected via audio-taping and note-taking by the researcher and were subsequently transcribed and analyzed. Transcriptions of the audio-taped interviews were downloaded into Atlas.ti® qualitative software to facilitate the analysis of the contents of the interviews.

The data analysis resulted in 91 level I open codes (see Appendix G). These were subsequently clustered into 11 categories, and eventually distilled down to four themes: 1) “My Body Knows How to Do”: The Normalcy of Pregnancy, 2) Seeking Knowledge: Seeking Choices 3) “What’s the Point?”: When Care During Pregnancy Is Not Satisfying; and 3) Having a Voice. Details about each of these themes are presented in their respective sections of this chapter.

“My Body Knows How to Do”: The Normalcy of Pregnancy

40
These were statements that women gave about certain life experiences, beliefs, and/or family influences that supported women’s confidence in themselves as being capable of experiencing pregnancy and giving birth without undue medical interventions. A woman’s belief about herself or positive experiences in her life influenced how they thought about prenatal care and the expectations and decisions they made. These expressions reflected personal opinions or beliefs about one's health, and one's decision-making processes about health issues. Women wanted to do “everything right”; but what is “right” was according to their own beliefs about health. Women in the study wanted to be healthy: “Beyond prenatal care; care in the sense of being healthy – self care”. Women described themselves as “not [being] fear-based but want healthy outcomes.” By listening to their bodies, they expressed a belief in their abilities to proceed through the childbearing experience: “The body knows how to do”. These women did not view pregnancy as a sickness (“Pregnancy is not a burden or a sickness to be managed”; “Pregnant women are not ill, women do not need to be fixed”).; they felt it is natural part of a woman’s life that she is capable of handling (“Women have the ability to grow and birth a child”).

The women felt positive about the normal process of pregnancy but also wanted to be vigilant about problems (“Preventing harm if things go wrong”). “If prenatal care resources are available, use them; they are there to make sure you and the baby are healthy.” They expressed the need to feel confident in the professionalism and knowledge of their providers, should they develop a problem during the pregnancy and birth (“…a provider who can offer all that is available”). Participants were confident in themselves and the supportive role of prenatal care in helping them to achieve a natural birth.
Seeking Knowledge: Seeking Choices.

Women had a strong desire to learn all they could about being healthy and having a healthy baby ("I want to do everything right"). When participants thought about prenatal care (what it meant to them and what they were expecting) they expressed certain wishes and desires about how they viewed prenatal care and what they wanted from prenatal care. In describing themselves, all of the women noted that the desire for knowledge was the key factor in how they thought of prenatal care. Women were seeking knowledge from “outside” themselves, knowledge from their own research, or from a “community of peers”. Women were seeking knowledge: “to learn about how to be a good mom; what I’m supposed to eat and do and how to be safe”. They were looking for resources and support; resources to access the people and technologies they needed to reinforce and validate their experiences and to ensure an optimal outcome for their babies and themselves. The women expressed the importance of using resources to make sure they and their unborn babies stayed healthy during the pregnancy. One woman described herself as a “researchy-type” to emphasize her active role in finding out as much as possible about pregnancy.

Planning for the place of birth was, for some women, the beginning of thinking about prenatal care choices, including the provider they wanted to engage with for prenatal care. Once they made their decision about their place of birth and provider, their health during pregnancy became the important focus.

Some saw prenatal care as self-care “outside of like actually meeting with my health care provider. I wanted to get care in the sense of like being healthy, like nutrition and exercise”. Some women envisioned care beyond the provider/patient model and hoped to find a “community of other moms” who could share experiences and learn from each other.
Having choices (e.g. out-of-hospital birth and midwifery care) was identified as being very important by the women. They also noted barriers to the choices they wanted, including family members who did not share similar beliefs or opinions about prenatal choices to be made (“When you get pregnant, you go see a doctor”; “Going to see a doctor for a hospital birth is a given”; “My family taught me to go to the doctor. It’s kind of a given for me”). The lack of resources from living on an island and insurance company restrictions on services (e.g., lack of coverage for homebirth services) were also barriers to care. Limited choices and limited resources for birthing classes and a lack of opportunities for meeting other pregnant women were considered by participants to be ‘typical’ for the Big Island. Some women chose to pay out of pocket for the kinds of services they wanted when these services were not covered by insurance (e.g., homebirth services). Some women who had prior negative experiences with certain types of care providers (e.g. physicians and “hospitals in general”) expressed that they were worried about feeling “unsafe and isolated”. “The less time I can spend around doctors, the healthier I’ll be.”

Women expressed a need to feel safe and respected when asking questions. They valued providers who spent time with them, were not rushed, and had positive personalities.

“What’s the Point?”: When Care during Pregnancy Is Not Satisfying

Women were concerned about not being satisfied with prenatal care or “not connecting” to one’s provider. One expressed this as “What’s the point?” What is the point of going to prenatal visits when the care is dissatisfying, unhelpful, with poor communication between the provider and the patient? Another described this dissatisfaction as “the taking of power away from women”. of injustices to women when medical decisions were made without women being empowered to co-manage their own care. Empowering patients, helping them to make choices
about their own health care, and being in control were important beliefs expressed by these women.

Dissatisfaction with prenatal care was described as being a lack of connection with providers in addition to “short, curt” appointments. “She never felt the baby, never palpated the stomach…no connection. Felt really cold. I walked out thinking ‘why do this?’ ”

One participant expressed that women who remained in care with such providers must feel like they were supposed to do things, even if these things were not what they truly wanted or believed were healthy choices. “You realized so many women have a totally different perspective on what prenatal care and birthing is. Their expectations are different, they are told what to do and how it’s going to be; they just expect someone superior telling them what to do.”

The influence of families on pregnant women’s choices as to whether or not to continue prenatal care with a non-supportive provider was also mentioned: “if you’re 16 years old how do you tell your big extended family ‘I’m just not feeling comfortable [with that provider]’? Those aren’t things that are necessarily validated in families or in society.”

**Having a Voice**

In response to the inquiry about being interviewed, participants expressed satisfaction with being asked about their thoughts about and expectations for prenatal care. “It’s comfortable for me…I like to share my ideas.” “It’s good to have someone listen”. “I wanted to participate [in this study]…to express my concerns and my frustrations of a new mom living in Hawaii.”
CHAPTER 5. DISCUSSION

Women’s expectations and experiences of prenatal care were explored in this study using a qualitative descriptive design that used individual interviews with participants, as previously described. In this chapter, a discussion of the research aim and results follows, including implications of the findings, comparisons with the existing body of knowledge, and recommendations for future research. In addition, the use of the theoretical frameworks, the social ecological model and feminist theories, that helped guide the researcher during the analysis process to reflect on and categorize the data, will be included. The strengths and limitations of the study will also be addressed as well as recommendations for future research to further explore this issue.

Research Aim

The purpose of this study was to focus on women’s expectations and experiences with prenatal care in order to begin to address the underutilization of prenatal care by women living in rural Hawai`i. The qualitative approach used to explore this issue was chosen to address the research questions that were asked as a result of an extensive review of the literature that revealed a gap in published research about women in this population’s expectations and experiences of prenatal care. Focusing on women’s expectations and experiences of prenatal care from the standpoint of the women themselves, can contribute to the existing body of knowledge about this topic. This study sought to have direct input from first time pregnant women’s perceptions of what prenatal care is and their experiences of prenatal care in order to better inform health care providers about what may or may not enhance the utilization of existing prenatal care services in a rural community in Hawai`i. The aforementioned theories (social ecological model and feminist theories) reviewed as part of the literature review did not direct
the inquiry but they did provide a conceptual basis for the reflection by the researcher during the data analysis and interpretation.

What is unique about this study is the exploration about a health topic in a particular population of women who are often ignored: Women who are pregnant for the first time who live in a rural area of Hawai`i and seeking their input about prenatal care by asking them to share what they expected and what they experienced about prenatal care in their pregnancies. The conclusion of the review of the literature completed by the researcher indicated that there was a gap in existing knowledge about this particular group of pregnant women’s prenatal care needs and experiences resulting in seeking women’s “voices” (i.e., direct input) about prenatal care expectations and experiences. As a result of the literature review, it was evident that a study exploring the viewpoints of Hawai`i recipients of care might provide more meaningful information that would be grounded in participants’ experiences and serve to contribute to existing knowledge about what enhances and detracts from women utilizing existing prenatal care services.

The results of this study revealed four distinct themes reflecting common perspectives shared by the participants. These themes were: 1) “My Body Knows How to Do: The Normalcy of Pregnancy; 2) Seeking Knowledge: Seeking Choices; 3) “What’s the Point? ” When Care During Pregnancy Is Not Satisfying; and 4) Having a Voice. Each of these themes is presented below under their respective headings.

“My Body Knows How to Do”: The Normalcy of Pregnancy

In this study of rural women living on the Island of Hawai`i, the participants valued providers who viewed pregnancy as a normal process. By demonstrating respect for the
normalcy of pregnancy, the providers gained the trust of the women which resulted in the women looking forward to and having high levels of satisfaction with their prenatal care.

Pregnancy and birth, as defined by the World Health Organization (World Health Organization, 2005) and other expert organizations (Healthy People 20/20, National Institute of Health, and American College of Nurse-Midwives), are normal processes that do not need interventions (American College of Nurse-Midwives, 2014). Belief in and support of normalcy of pregnancy and birth by midwives is explicitly identified by Kennedy as a primary process and trait of the therapeutic dimension of midwifery care (Cragin, 2004; Kennedy, 2000) (see Figure 6). In Kennedy and Shannon’s work (2004), an investigation was done to explore the processes and outcomes of midwifery care through narratives told by exemplary midwives using narrative analysis of a purposive sample of 14 midwives drawn form a large national Delphi panel on exemplary midwife practice. The midwives who participated in the study believed that women’s bodies were physiologically prepared to have labor and birth occur, with little technological intervention. One of their suggestions was to work with women (and others) to understand and hopefully assimilate this belief.

The participants in this study noted that they rarely missed prenatal care appointments. However, contrary this study findings, are the results from the metasynthesis done by Finlayson and Downe (2013). Their metasyntheses looked for qualitative studies that explored the antenatal experiences, attitudes, and/or beliefs of women from low to middle income countries who had chosen to access antenatal care late, infrequently, or not at all. Twenty-one papers, representing views of over 1200 women from 15 countries (none from the US) were reviewed. Three themes were identified: “pregnancy as socially risky and physiologically healthy”; “resource use and survival in conditions of extreme poverty” and “not getting it right the first time”. As a result of
their findings, the researchers noted that some women reported that they did not feel the need to seek professional care when nothing was wrong with their pregnancies (i.e., “normal” pregnancy). The researchers felt that this attitude was captured in the question “What is the point in going for a check-up in a healthy conditions?” (p. 5). Public education strategies to promote the benefits of prenatal care might be critical in populations with large underutilization of prenatal care. Yet the results of this dissertation research, through the views of the participants living in a rural area of Hawai`i, support the current maternal/newborn trend that appreciates both the normalcy of pregnancy and the value of prenatal care.

**Seeking Knowledge; Seeking Choices**

In order to stay healthy and to prevent illness during their pregnancies, the participants in this study were not inhibited from seeking out what they wanted to attain these goals. Knowing what the birth choices were and being “researchy type” people (as one woman described herself) helped these participants to eventually get what they wanted for their healthcare. However, late entry into prenatal care did occur due to some of the women needing more time to make decisions about the places where they wanted to give birth and which providers to choose to help them. As the women reported, this information was often hard to find and complicated by the lack of health insurance coverage in Hawai`i for some of these types of alternative services (e.g. home birth and home birth providers).

Worldwide, women seek information and choices in their care. Women seek providers of care who can help them with information and choices. In the metasynthesis by Renfew (2014), a framework was developed to describe quality maternal and newborn care and services. This meta-synthesis of qualitative studies was performed addressing the experiences of low-risk pregnant women with their pregnancy care world-wide. Thirteen metasyntheses were identified
representing 244 qualitative studies. These were examined and analyzed. One of the study aims of the 13 metasyntheses was to report women’s views and experiences of maternal and newborn care. That study aim identified “the elements of care that matter to women” (p. 1131) as:

Education, information, and health promotion. Information that is readily available for women and a variety of health services offered that are covered by health insurances, can promote early and adequate participation in prenatal care. For example, in Washington State, US, Licensed Midwives who provide home birth services, are covered by all Washington-based insurance companies; coverage has lead to improvements in earlier and adequate prenatal care in the state (Midwives Association of Washington State, 1998-2011).

In order to continue to be engaged in prenatal care, women expected prenatal information that they received to be accurate, relevant, and informative and to be offered choices in their care. Women who are not supported in their seeking of knowledge or offered choices in their care might not participate adequately or at all in prenatal care.

“What’s the Point?” When Care During Pregnancy Is Not Satisfying

Participants in this study suggested that women may not attend prenatal visits when the care is dissatisfying, unhelpful, and/or when there is poor communication between the provider and the patient. Renfew et al. (2014, p. 1132) also supported this view by stating that prenatal services needed to be provided in a respectful way by staff who engendered trust, who were not abusive or cruel, and to be offered by care providers who were empathic and kind in order to promote attendance. Particularly, women wanted health professionals who combined clinical knowledge and skills with interpersonal and cultural competence (e.g. hallmarks of midwifery care and exemplary midwifery practice). Kennedy (2000) used the Delphi method to define exemplary midwifery practice. Fifty two midwives and 61 recipients of care participated in the
study. Analysis was done using narratives and structured surveys. Results of that study included how midwives update their knowledge, respect the uniqueness of women and their families, create settings that are respectful and reflect the women’s needs. Creating a respectful setting did not reflect the physical environment but rather, was one constructed of respectful actions that included the woman’s need for time, information, encouragement, validation, and a supportive presence. One midwife called it “creating a setting in which the woman comes first, in which she is taken seriously” (p. 10). Providers who do not educate, do not provide information, or do not create an environment of health promotion can impede entry into and utilization of prenatal care by women. Models of care are needed, for example midwifery care or the CenteringPregnancy© group model of prenatal care that increase goals for prenatal attendance and positive health outcomes.

**Having a Voice**

Responses from the participants in this study confirm that women felt positive about being interviewed and having a voice in these matters. Listening to “voices” of women and advocating for them are core values of midwives (American College of Nurse-Midwives Board of Directors, 2012). The voices of childbearing women need to be a part of the preparations for visionary planning to address family health needs in the 21st Century (Kathryn, 1993).

In a secondary analysis of an integrative literature review of CenteringPregnancy© (Manant & Dodgson, 2011), it was noted that the adoption of the CenteringPregnancy© model by health care providers was primarily based on professional recommendations with very limited input from the community. In the CenteringPregnancy© research studies reviewed (n=12) only one mentioned a stakeholder (community women) assessment prior to initializing the CenteringPregnancy© model (Rising, 1998). Dialogue with individuals within a community for
whom a health care intervention is targeted (community assessment), is integral to the process of community buy-in and thus utilization of that intervention (Minkler & Wallerstein, 2003).

This group of women who shared their perspectives and experiences are a beginning in our attempts to have childbearing women in rural Hawai`i be included as active participants in understanding and changing prenatal care services in order to have improved utilization of these services.

**Limitations**

A limitation of this study was the small number of participants. This was due to problems encountered during recruitment of eligible participants for the study. Initially, the setting of the study was restricted to only the north part of the Island of Hawai`i. The researcher is a certified nurse-midwife, employed by the main medical group that provides prenatal care to pregnant women in the north part of the Island of Hawai`i; therefore, finding participants who were not directly under her care (an exclusion criteria) was difficult. In order to avoid enrollment of participants under the researcher’s care as a midwife, an CHS modification of the study was submitted and approved in order to include pregnant women meeting the eligibility criteria who lived anywhere on the Island of Hawai`i because the entire island is considered a medically underserved area with a large population of Native Hawaiian and part Native Hawaiian residents. The expected outcome was to be an increase in recruitment and enrollment of eligible women. Several letters and emails were written to the professional community and posters and recruitment information were given to childbirth educators. Despite increased recruiting efforts throughout the Island of Hawai`i, there was not an increase in referrals or enrollment. As a result, the sample size was small, resulting in a lack of saturation for many of the elements that emerged from the interview data. After discussion with the doctoral dissertation chair, and
communications with the PhD Program Director at the School of Nursing and Dental Hygiene at University of Hawai`i, Manoa, the study was approved to proceed with completion of the analysis and interpretation of the data, the writing of the dissertation chapters for review by the committee, and the plan for a public dissertation defense. Despite this limitation, this sample of three women provided interesting and rich interviews that resulted in further insights about women’s expectations and experiences of prenatal care in rural Hawai`i.

Another limitation of this study was that none of the participants were Native Hawaiian women as the participants were all Caucasian. Native Hawaiian women were specifically sought out for recruitment for this study in order to have their emic viewpoint (i.e., their “voice”) about their expectations and experiences of prenatal care since they comprise a substantial number of the childbearing women in the region and the literature indicated that they are at higher risk for adverse perinatal outcomes (e.g. preterm birth).

Another limitation of this study was that all three participants had already been enrolled in prenatal care past 20 weeks gestation. Inclusion criteria gave preference to women who were early in their pregnancies (prior to 20 weeks gestational age). By already participating in prenatal care for some time, the participants had demonstrated that they had already “bought into” receiving prenatal care. Recruitment of pregnant women who had not yet entered prenatal care or who had less exposure to prenatal care could have potentially added an important perspective to the focus of this study.

The participants in this study were able to advocate for themselves obtain what they wanted from prenatal care services and were willing (and had the means) to pay out-of-pocket, if needed, in order to get the care they wanted. Having women participate in this study who did not
research their pregnancy care choices or who could not pay for services that they may have desired could have provided interesting perspectives.

All three participants were planning homebirths and were referred to the researcher by one homebirth midwife. Thus, they represented an alternative group of women, unlike the majority of women on the Island of Hawai`i who plan to give birth in hospitals. Having input from participants regarding their expectations and experiences of prenatal care provided a perspective that was an important facet to understanding women’s choices about and expectations of prenatal care. However, hearing the perspective of pregnant women who plan hospital births could have provided important viewpoints for this study as well.

**Implications for Clinical Practice**

Underutilization of prenatal care can include delayed access to care, and missed and infrequent appointments leading to suboptimal health outcomes. Reasons for underutilization of prenatal care by women have been noted in the literature to be multifactorial and, importantly, can be due to women’s perceptions about how valuable these services are. Seeking information from pregnant women about their expectations and experiences of prenatal care prior to offering prenatal care or as an ongoing quality improvement strategy has the potential to improve utilization of prenatal services. Strategies incorporating culturally appropriate understandings of maternity care tailored to individual patients could increase antenatal coverage and reduce maternal and infant morbidity and mortality. Data from studies that incorporate an emic perspective can provide the basis for approaches to the design and delivery of prenatal care founded on a careful analysis of distinctive local beliefs (culture), values, and resource availability. In addition, this input helps expand medical systems from focusing primarily on broad, population-based solutions (solutions from outside a community), toward services
designed that consider the emic perspective of “what works, for whom, and in what circumstances” (Finlayson & Downe, 2013, p. 10).

Future studies about women’s expectations and experiences of prenatal care would be enriched by including the input of women who might chose not to participate in prenatal care at all or from women who prefer hospital or physician-based care. In addition, study designs using group interviews or focused groups might be a useful to employ, if culturally appropriate.

**Conclusions**

From this small study sample, women in rural Hawai`i viewed pregnancy as a normal process, wanted relevant information and choices about their prenatal care, and desired to have collaborative relationships with supportive and attentive prenatal care providers. When these elements were present, women were more likely to continue utilization of that care.

This study supports previous studies that addressed how women view pregnancy as a normal process, want choices about their prenatal care, and desire to have collaborative relationships with supportive and attentive providers. In this study, and others, researchers partnered with women to find out what women want in their health care. By contributing to the existing body of knowledge with a unique population, this study adds a perspective of rural women in Hawai`i. By opening the door to the input (i.e., “voices”) of these women, their unique perspectives have been shared. However, further exploration about the expectations and experiences of pregnant women living in rural Hawai`i with larger and more diverse ethnic samples are needed to facilitate understanding the utilization patterns of prenatal care by this population.
References


American College of Nurse-Midwives. (2014). Evidence-Based Practice: Pearls of Midwifery A Presentation by the American College of Nurse-Midwives.


Centers for Disease Control and Prevention. (2012). Health Indicators Warehouse, Prenatal, early and adequate (percent), from www.healthindicators.gov/indicators/Prenatal-care-early-and-adequate-percent_1132/National_0/Profile


Journal of Nurse-Midwifery, 38(5).

Journal of Midwifery & Women’s Health, 45(1), 4-19.


### Table 1. Healthy People Targets and Percentages for Prenatal Care Beginning in the First Trimester and Early and Adequate Prenatal Care: United States, Hawai‘i, and Rural Hawai‘i (all islands)

<table>
<thead>
<tr>
<th>Perinatal Indicators</th>
<th>Healthy People 2020 Targets (Goals)</th>
<th>U.S.</th>
<th>Hawaii</th>
<th>Rural Hawai‘i</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prenatal care beginning in the first trimester:</strong> Percentage of live births to mothers (all ethnicities) receiving prenatal care in their first trimester</td>
<td>77.9% (2015)&lt;sup&gt;a&lt;/sup&gt;</td>
<td>70.8% (2007)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>78.8% (2008)&lt;sup&gt;c&lt;/sup&gt;</td>
<td>68.8% to 73.5% (2001-2008)&lt;sup&gt;c,d&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Early and adequate prenatal care:</strong> Percentage of pregnant females receiving early and adequate prenatal care</td>
<td>77.6% (2015)&lt;sup&gt;a&lt;/sup&gt;</td>
<td>70.5% (2007)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>65.7% (2010)&lt;sup&gt;c&lt;/sup&gt;</td>
<td>(not available)</td>
</tr>
</tbody>
</table>


<sup>c</sup> Adapted from “Pregnancy Risk Assessment Monitoring System (PRAMS) Data, 2000-2008 by Hawai‘i Department of Health, 2011.

<sup>d</sup> Adapted from “Prenatal Care Fact Sheet” by A. Schempf et al., 2010, Hawai‘i Department of Health, Family Health Services Division. Honolulu, HI.

Table 2. Hawai`i Maternal Health Disparities, Aggregated Data from 2004-2008

<table>
<thead>
<tr>
<th>Indicator</th>
<th>All Women in Hawai`i (%)</th>
<th>All Women in Hawai`i County (%)</th>
<th>Native Hawaiian Women in Hawai`i County (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unintended Pregnancy</td>
<td>45.3</td>
<td>50.6</td>
<td>54.6</td>
</tr>
<tr>
<td>Inadequate intake of Preconception Vitamin</td>
<td>63.4</td>
<td>69.7</td>
<td>74.1</td>
</tr>
<tr>
<td>First Trimester Prenatal Care</td>
<td>78.8</td>
<td>73.5</td>
<td>73.7</td>
</tr>
<tr>
<td>Preconception Obesity</td>
<td>15.8</td>
<td>17.7</td>
<td>23.8</td>
</tr>
<tr>
<td>Smoking During Pregnancy</td>
<td>8.5</td>
<td>11.9</td>
<td>16.8</td>
</tr>
<tr>
<td>Preterm Birth</td>
<td>9.4</td>
<td>10.5</td>
<td>12.4</td>
</tr>
</tbody>
</table>

### Table 3. Pregnancy Risk Assessment Monitoring System (PRAMS) 2010 Fact Sheet

**Prenatal Summary for Rural Hawaii**

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trends in Early Prenatal Care</td>
<td>Obtaining early prenatal care is 8 to 10% lower outside of Honolulu County</td>
</tr>
<tr>
<td>Barriers to Prenatal Care</td>
<td>Unable to obtain appointment, not enough money, uninsured, too busy, wanting to keep pregnancy a secret</td>
</tr>
<tr>
<td>Maternal Characteristics</td>
<td>Women less likely to receive early prenatal care: Younger, less educated, unmarried, uninsured, on Medicaid/Quest, experiencing an unintended pregnancy, experiencing intimate partner violence; women who are Hawaiian, Pacific Islander, Samoan, and Hispanic</td>
</tr>
<tr>
<td>Influences</td>
<td>Physician shortages</td>
</tr>
<tr>
<td></td>
<td>Women who do not value obtaining prenatal care</td>
</tr>
<tr>
<td></td>
<td>Availability of insurance</td>
</tr>
<tr>
<td></td>
<td>Unintended pregnancy</td>
</tr>
</tbody>
</table>

*Note.* Adapted with permission from “Prenatal Care Fact Sheet” by A. Schempf et al., 2010. Hawai`i Department of Health, Family Health Services Division. Honolulu, HI.
Table 4. Population: United States, State of Hawai`i, Hawai`i Counties*  

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>315,283,212</td>
<td>1,404,054</td>
<td>Hawai<code>i County(Island of Hawai</code>i) (2013) 190,821</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Honolulu (City and County) (2013)     983,429</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maui County (2013)                    160,292</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Molokai (2010)                        7,345</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lanai (2010)                          3,135</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kauai County (2013)                   69,512</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Niihau (2010)                         170</td>
</tr>
</tbody>
</table>

*Years in parentheses indicate year of census.
Table 5. State of Hawai`i and County of Hawai`i Ethnicities (2010)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>State of Hawai`i</th>
<th>County of Hawai<code>i (Island of Hawai</code>i)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawaiian/Part Hawaiian</td>
<td>25.3%</td>
<td>30%</td>
</tr>
<tr>
<td>Japanese</td>
<td>24.0%</td>
<td>14.4%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>20.8%</td>
<td>30%</td>
</tr>
<tr>
<td>Filipino</td>
<td>13.3%</td>
<td>(no available data)</td>
</tr>
<tr>
<td>Chinese</td>
<td>3.2%</td>
<td>(no available data)</td>
</tr>
<tr>
<td>Other</td>
<td>13.4%</td>
<td>(no available data)</td>
</tr>
</tbody>
</table>

Table 6. First Trimester Prenatal Care (PNC) Entry by Maternal Race/Ethnicity, Hawai‘i, 2009-2011

<table>
<thead>
<tr>
<th>Maternal Race/Ethnicity</th>
<th>Not First Trimester PNC Entry (%)</th>
<th>First Trimester PNC Entry (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>9.95</td>
<td>90.05</td>
</tr>
<tr>
<td>Black</td>
<td>17.78</td>
<td>82.22</td>
</tr>
<tr>
<td>Hispanic</td>
<td>18.78</td>
<td>81.22</td>
</tr>
<tr>
<td>Hawaiian or Part Hawaiian</td>
<td>20.31</td>
<td>79.69</td>
</tr>
<tr>
<td>Filipino</td>
<td>15.04</td>
<td>84.96</td>
</tr>
<tr>
<td>Japanese</td>
<td>9.36</td>
<td>90.64</td>
</tr>
<tr>
<td>Chinese</td>
<td>9.42</td>
<td>90.58</td>
</tr>
<tr>
<td>Korean</td>
<td>5.18</td>
<td>94.82</td>
</tr>
<tr>
<td>Samoan</td>
<td>37.86</td>
<td>62.14</td>
</tr>
<tr>
<td>Other Pacific Islander</td>
<td>38.71</td>
<td>61.29</td>
</tr>
<tr>
<td>Other Asian</td>
<td>13.75</td>
<td>86.25</td>
</tr>
<tr>
<td>American Indian</td>
<td>14.29</td>
<td>85.71</td>
</tr>
<tr>
<td>Other or Unknown</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Table 7. First Trimester Prenatal Care (PNC) Entry by Maternal Pre-Pregnancy Insurance Status

<table>
<thead>
<tr>
<th>Maternal Pre-Pregnancy Insurance Status</th>
<th>Not First Trimester PNC Entry (%)</th>
<th>First Trimester PNC Entry (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIVATE INSURANCE</td>
<td>10.40</td>
<td>89.60</td>
</tr>
<tr>
<td>QUEST</td>
<td>28.08</td>
<td>71.92</td>
</tr>
<tr>
<td>NONE</td>
<td>37.66</td>
<td>62.34</td>
</tr>
</tbody>
</table>

Table 8. Maternity Care Services, Island of Hawai`i (Hawai`i County)

<table>
<thead>
<tr>
<th>Island of Hawai`i Districts (9)</th>
<th>Hospitals</th>
<th>Maternity Services Providers (Hospital Based)</th>
<th>Births (per latest year data available)</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Island of Hawai`i (all 9 districts)</td>
<td>6</td>
<td>17.63 Obstetrician/Gynecologists (OB/GYNs) 4 Certified Nurse-Midwives (CNMs)</td>
<td>2,265 (2013)</td>
<td>12 out-of-hospital “midwives” (CNM, Certified Professional Midwives, and others)</td>
</tr>
<tr>
<td>Kohala</td>
<td>Kohala Hospital</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>South Kohala</td>
<td>North Hawai`i Community Hospital Affiliate of the Queen’s Health System</td>
<td>North Hawai<code>i Medical Group (Wai</code>anae Women’s Center) 4 CNMs 3 OB/GYN Full Time Equivalencies 1 Family Practice Physician*</td>
<td>527 (2014)*</td>
<td></td>
</tr>
<tr>
<td>Hamakua</td>
<td>Hale Ho`ola Hamakua</td>
<td>0</td>
<td>0</td>
<td>Hamakua Health Center, a nonprofit community health center, provides outpatient medical care services for Honokaa and the Hamakua district.</td>
</tr>
<tr>
<td>North Hilo South Hilo</td>
<td>Hilo Medical Center</td>
<td>8 OB/GYNs 2 Family Practice Physicians*</td>
<td>1207 (2014)*</td>
<td>Department of Health and Department of Social Services and Housing district offices Bay Clinic</td>
</tr>
<tr>
<td>Puna</td>
<td></td>
<td>0</td>
<td>0</td>
<td>CNM practice Bay Clinic</td>
</tr>
<tr>
<td>Kau</td>
<td>Ka`u Hospital</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>North Kona South Kona</td>
<td>Kona Community Hospital</td>
<td>7 OB/GYNs*</td>
<td>525 (2014)*</td>
<td></td>
</tr>
</tbody>
</table>


*Data from personal correspondence Labor and Delivery Nurse Unit Managers January 2-6, 2015.
<table>
<thead>
<tr>
<th>Table 9. Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of participants</strong></td>
</tr>
<tr>
<td><strong>Ages</strong></td>
</tr>
<tr>
<td><strong>Ethnicities</strong></td>
</tr>
<tr>
<td><strong>Zip Codes</strong></td>
</tr>
<tr>
<td><strong>Parity</strong></td>
</tr>
<tr>
<td><strong>Trimester</strong></td>
</tr>
<tr>
<td><strong>Referral Source</strong></td>
</tr>
<tr>
<td><strong>Other</strong></td>
</tr>
<tr>
<td><strong>Health insurances</strong></td>
</tr>
<tr>
<td><strong>Interview locations</strong></td>
</tr>
<tr>
<td><strong>Interview dates</strong></td>
</tr>
<tr>
<td><strong>Interview lengths (minutes)</strong></td>
</tr>
</tbody>
</table>
Figures

Figure 1. Hawaiian Islands

Figure 2. Ethnic Distribution, State of Hawai`i, 2010

Figure 3. Downward Trends in Receiving Early and Adequate Prenatal Care in Hawai‘i


aHealthy People 2020 goal is for an increase of early and adequate prenatal care to at least 77.6% of live births.
Figure 4. Hawai`i County Districts

Figure 6. Exemplary Midwifery Practice

### Appendix A. Review of the Literature: Prenatal care in Hawai`i (2012)

<table>
<thead>
<tr>
<th>Article</th>
<th>Method</th>
<th>N/Sample/Setting</th>
<th>Findings/Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affonso, D. D., De, A. K., Korenbrot, C. C., &amp; Mayberry, L. J. (1999). Cognitive adaptation: A women's health perspective for reducing stress during childbearing. <em>Journal of Women's Health &amp; Gender-Based Medicine, 8</em>(10), 1285-1294.</td>
<td>Prospective longitudinal design. Malama perinatal program (the intervention) and comparison group, four measures of adaptation were assessed with self report questionnaires and analyzed using ANOVA measures of analysis.</td>
<td>East Hawaii 223 women of Hawaiian, Filipino, and Japanese descent</td>
<td>Adaptation improved and stress declined for Malama program participants.</td>
</tr>
<tr>
<td>Affonso, D. D., Mayberry, L. J., Shibuya, J., Kunimoto, J., Graham, K.Y., Shepak, S. (1993). Themes of stressors for childbearing women on the island of Hawaii. <em>Family Community Health, 16</em>(2), 9-19.</td>
<td>Pilot survey (30 women) Focus groups (5 groups)</td>
<td>East Hawaii 5 focus groups of up to 10 persons each, ages 18 to 40. Met for 3 times to discuss 3 questions 1) What kinds of events or experiences are difficult for a local woman to handle when she is pregnant? 2) What kinds of feelings do women have during pregnancy or after childbirth that are not easy to deal with?</td>
<td>3 predominate themes of stressors were reported unique to each ethnic group (Hawaiian, Filipino, Japanese)</td>
</tr>
<tr>
<td>3) What kinds of events, feelings, or concerns happen within a family that are hard for a pregnant or post partum woman to deal with?</td>
<td>Affonso, D. D., Korenbrot, C. C., De, A. K., &amp; Mayberry, L. J. (1999). Use of care, outcomes and costs of a culturally-based preinatal program for Asian American and Pacific Islander women in Hawaii. <em>Asian American and Pacific Islander Journal of Health, 7</em>(1), 10-24.</td>
<td>Data analysis, comparatives study between 2 groups</td>
<td>Hilo/Puna 223 Malama group (1992-1994) compared with 2273 birth certificate records(1988-1991)</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Baruffi, G., Alexander, G. R., Perske, K. F., Fuddy, L., Onaka, A. T., Mor, J. M. (1998). Prenatal care utilization in Hawaii: Did it</td>
<td>Analysis of birth certificate data</td>
<td>1979-1994 period N=283,272 births to women were analyzed using birth certificate data.</td>
<td>14.1% of all women did not adhere to the recommended prenatal care visit schedule in spite of starting care in the first trimester. This was an increase of 54% since 1979-</td>
</tr>
<tr>
<td>Study</td>
<td>Methodology</td>
<td>Participants</td>
<td>Findings</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Hayes, D. K., Ta, V. M., Hurwitz, E. L.,</td>
<td>PRAMS data to analyze self reported PP depression</td>
<td>2004-2007 N=7,154 women</td>
<td>14% had self reported depression symptoms</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------------------</td>
<td>---------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Kieffer, E. C., Alexander, G. R., &amp; Mor, J. M. (1992). Area-level predictors of use of prenatal care in diverse populations. <em>Public Health Reports, 107</em>(6), 653-658.</td>
<td>Regression analysis of census tract and vital statistic files to locate census tracts with high levels of inadequate prenatal care use to identify community level factors</td>
<td>1979-1987 162,000 birth certificates Hawaii</td>
<td>High parity for age, Samoan, Black, Japanese, and other Asian ethnicity and &gt;than HS education were associated with inadequate use of prenatal care. Census tract data important for needs assessment requirements of Federal programs</td>
</tr>
<tr>
<td>Source</td>
<td>Data analysis/methodology</td>
<td>Timeframe</td>
<td>Results/Implications</td>
</tr>
<tr>
<td>--------</td>
<td>---------------------------</td>
<td>-----------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Korenbrot, C.C., Affonso, D.D., Mayberry, L.J., Paul, S.M. (1994). Associations of the use of prenatal care with low birthweight in Asian Pacific women in Hawaii. <em>Asian American and Pacific Islander Journal of Health, 2</em>(3), 182-193.</td>
<td>Birth certificate records were analyzed (Chi square, unadjusted odds ratio, multivariate analysis)</td>
<td>Birth Certificates from 1988 to 1990 No N given</td>
<td>Hilo-Puna women at significant risk for low birth weight (&lt;2500 grams) (risk factors included: unmarried, &lt;12 years level of schooling, certain ethnic groups who had elderly primiparas, female babies). For Hawaiian women poor birth weight outcomes were significantly associated with inadequate amounts of prenatal care (as defined by Kessner and Gortmaker) Implications: need for a culturally competent rural prenatal program to reach out to women in the</td>
</tr>
<tr>
<td>Reference</td>
<td>Methodology</td>
<td>Study Population</td>
<td>Findings</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
<td>------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Kogan, M. D., Alexander, G. R., Mor, J. M., &amp; Kieffer, E. C. (1998). Ethnic-specific predictors of prenatal care utilisation in Hawaii. <em>Paediatric and Perinatal Epidemiology, 12</em>, 152-162.</td>
<td>Descriptive data analysis of birth certificate data to see if, with universal health coverage for pregnancy in Hawaii, socio-demographic differences in prenatal care utilization will disappear.</td>
<td>1979-1992 birth certificates N= 165,301 To study ethnic specific determinates of prenatal care Persistence of social variation among all ethnic groups even with universal access to prenatal care. Hawaiians had the most inadequate prenatal care utilization and no prenatal care. Removal of financial barriers is not sufficient to ensure high level prenatal care usage. We need to illuminate and overcome the remaining barriers to care.</td>
<td></td>
</tr>
<tr>
<td>Perinatal outcomes for Asian, Native Hawaiian, and other Pacific Islander mothers of single and multiple race/ethnicity: California and Hawaii, 2003-2005. <em>American Journal of Public Health</em>, 100(5), 877-887.</td>
<td>race/ethnicity and multiple race/ethnicity Low birth weight and preterm birth were the variables</td>
<td>increased; multiple-race/ethnicity status is associated with poorer birth outcomes. Important to not combine API data.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Todd, W.A. &amp; Peabody, J.W. (2004). Maternal predictors of infant health outcomes among Hawaiians. <em>Hawaii Medical Journal</em>, 63, 40-44.</td>
<td>Literature review Current demographic and perinatal date from the Hawaii Dept of health.</td>
<td>Published since 1994, 4 articles met criteria Hawaiian maternal and infant health, used Hawaiian vital records after 1979 (when near universal health care was established), and compared Hawaiian women use less prenatal care and have higher infant mortality rates despite universal access. Hawaiian women are not engaging in western medicine for prenatal care, and may</td>
<td></td>
</tr>
</tbody>
</table>
Mat prenatal health utilization and/or infant health outcomes among non-military Hawaiians and other ethnic groups living in Hawai‘i. 2 articles were included to assess maternal characteristics and a qualitative study regarding barriers instead of seeking traditional practices for prenatal care. Public health professionals may need to focus on maximizing support services that are culturally competent for women who are not married and have high parity for age.

### Results of Hawai`i Prenatal Research Literature Review (N=17) (CINAHL, PubMed; 1992-2011)

<table>
<thead>
<tr>
<th>Method</th>
<th>n</th>
<th>N and age</th>
<th>Setting</th>
<th>Findings</th>
<th>n</th>
<th>Conclusions of Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus Group (Ethnography)</td>
<td>1</td>
<td>≤100 women</td>
<td>Hawai`i State</td>
<td>Ethnic Health Disparities in Hawai`i a</td>
<td>12</td>
<td>Many perinatal health disparities exist in Hawai`i for many ethnic groups.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>101-1000 women</td>
<td></td>
<td>• Preterm birth</td>
<td></td>
<td>Culturally sensitive perinatal health care interventions can improve perinatal health outcomes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;1001 women</td>
<td></td>
<td>• Low birth wt</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unknown</td>
<td>Oahu or Honolulu.</td>
<td>• Macrosomia</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N/A</td>
<td></td>
<td>• High infant mortality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison of groups w/ an intervention and groups without using surveys and questionnaires</td>
<td>3</td>
<td>≥18 only</td>
<td>Hilo/Puna</td>
<td>• Inadequacy of prenatal care (early access and inadequate visit numbers)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literature Review</td>
<td>1</td>
<td>All ages</td>
<td></td>
<td>• Mental health problem(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Randomized controlled trial</td>
<td>1</td>
<td>N/A</td>
<td></td>
<td>• Depression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparisons of groups, Vital Stats</td>
<td>11</td>
<td></td>
<td></td>
<td>Interventions Improved Outcomes(^a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Adaptation to pregnancy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Decrease stress</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Adequacy of prenatal care (early and # of visits)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Improved newborn wt</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Decrease preterm birth</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Decrease costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Improved postpartum (pp) follow up visits, breastfeeding, contraceptive use</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Interventions did not improve outcome (Rapid Repeat Pregnancy)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Qualitative themes(^b)</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Not all variables or outcomes were measured in all studies
\(^b\) Hawaiian, Filipina, Japanese groups each had 3, 3, & 4 (a total of 10) themes respectively. The focus group questions were negatively stated (What kinds of events or experiences are difficult for a local woman to handle when she is pregnant; What kinds of feelings do women have during pregnancy or after childbirth that are not easy to deal with; What kinds of events, feelings or concerns happen within a family that are hard for a pregnant or postpartum woman to deal with?). Adapted from “Themes of Stressors for Childbearing Women on the Island of Hawaii” by D.D. Affonso, et al., 1993. *Family and Community Health*, 16(2), 9-19.
## Appendix B. Theoretical Frameworks

### Theoretical Framework:
Using Social Ecologic Theory in Research

<table>
<thead>
<tr>
<th>Social Ecological Principle</th>
<th>Guidelines for Interviews with Participants and for Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental influences on well-being are multifaceted</td>
<td>Be aware of possible links between health and environmental conditions</td>
</tr>
<tr>
<td>Intra-personal and environmental factors effect health and illness</td>
<td>Be aware of the behavioral, dispositional, developmental, &amp; demographic factors on people’s responses to the environment</td>
</tr>
<tr>
<td>Person-environment fit and perceived controllability for individuals and groups are relevant to well-being</td>
<td>Be aware of the fit (or misfit) between persons &amp; their surroundings</td>
</tr>
<tr>
<td>Behavioral and organizational “leverage points” are important to identify</td>
<td>Attempt to identify “leverage points” or pivotal influences on well-being</td>
</tr>
<tr>
<td>Activity settings and life domains are interdependent</td>
<td>Attempt to identify what has been sustainable (or not) and what has (or has not had) a positive/enduring influence on individuals and the community</td>
</tr>
<tr>
<td>An interdisciplinary approach is needed to evaluate health</td>
<td>Attempt to connect biomedical, behavioral, regulatory, and environmental influences on health</td>
</tr>
</tbody>
</table>

## Theoretical Framework: Feminist Perspective and Strategies for Doing Research

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Research questions</th>
<th>How are strategies and questions documented/included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explore researcher role in relationship to the topic</td>
<td>Why do researchers care about the issue?</td>
<td>Self-reflective journal</td>
</tr>
<tr>
<td>Look for what is left out</td>
<td>Why hasn’t this subject been studied before or thoroughly?</td>
<td>Literature review</td>
</tr>
<tr>
<td>Look for participant ‘agency’</td>
<td>What kind of power do participants have or not have?</td>
<td>Interviews</td>
</tr>
<tr>
<td>Consider the social construction of health and health care</td>
<td>How do participants define these terms?</td>
<td>Interview: To allow for participants to define their own terms of health &amp; health care</td>
</tr>
<tr>
<td>Look for gender and social positions affecting relationships within the health care system</td>
<td>How do participants see their relationships with those in health care?</td>
<td>Interviews</td>
</tr>
<tr>
<td>Consider viewing the topic as individuals versus group</td>
<td>Do participants see health care issues as individuals or are they speaking for others?</td>
<td>Interviews</td>
</tr>
</tbody>
</table>

Appendix C. Presumptions About Participants: A Researcher’s Viewpoint

| Viewing their health | Women are concerned about their health and the health of their babies  
|                      | Women want reassurance and good news about their pregnancies  
|                      | Women want to do the right thing (whatever that is) for themselves and their babies  
|                      | If women cannot do the ‘right’ thing, they may say they did even though they did not (the desire is so strong to be seen as “a good mom”)  
| Weighing the benefits of prenatal care | Some women do not want to attend all prenatal visits or submit to all tests offered to them  
| Barriers to health care | Late access to prenatal care or infrequent use of care is a norm in some communities and is not seen as a negative  
|                      | What motivates women to take or not to take action regarding their health issues and problems often has to do with partner, family, money issues, or external issues beyond their control (i.e. barriers to care) (e.g. transportation, insurance, baby sitting issues)  
| Being interviewed | Women might feel nervous being interviewed by a professional person  
|                      | Women might feel uncomfortable being interviewed by someone of a different ethnicity than them  
|                      | Researcher’s presence may bias women’s responses  
|                      | Women might feel the need to talk about an experience in a ‘positive’ way, thereby avoiding any potential negative consequences for a health care provider (not wanting to get someone into trouble by saying something negative about them)  
|                      | Women may allow themselves to be interviewed solely for the gift being offer  
|                      | Some women may not feel comfortable enough to speak their truths; being interviewed face to face may be intimidating or uncomfortable  
|                      | Some women might not be honest about their feelings  
|                      | Women might be fearful of consequences of speaking how they feel  
|                      | Women may allow for an interview out of altruistic reasons (thinking that doing an interview is good for their community)  
|                      | People are not equally articulate and/or perceptive about their healthcare issues and problems  

*Note. Adapted with permission from “Listening to Women: Prenatal Concerns of Women in Hawai`i” by A.Manant and J. Dodgson. Unpublished Content Analysis, PRAMS data.*
Appendix D. Consent Form

University of Hawai‘i
Consent Form

Consent to Participate in Research Project:

Women’s Voices: Prenatal Care Expectations of Women Living in Rural Hawai‘i

My name is Annette Manant. I am a doctoral student at the University of Hawai‘i at Manoa (UH), in the School of Nursing and Dental Hygiene. I am doing a doctoral study on maternal health on the Island of Hawai‘i. The purpose of this study is to learn about pregnant women’s expectations and experiences of their prenatal care in the communities in which they live. A one-hour face-to-face interview will take place at a convenient location of your choosing.

I am asking you to participate in this project because I am hoping to interview women who are pregnant and using prenatal care for the first time, are English speaking, and at least 20 years of age. A modest gift card of $20.00 to be use at a local business will be given to each participant to acknowledge them for their time spent in the study.

Project Description - Activities and Time Commitment: If you participate, I will interview you once, face-to-face at a convenient location near you. The interview will last about one hour. It is possible that I may need to call you to clarify something said during the interview. I will record the interview using a digital audio-recorder. I am recording the interview so I can later type a transcript – a written record of what we talked about during the interview - and analyze the information from the interview. If you participate, you will be one of a total of approximately 20 women who I will interview individually. One example of the type of question I will ask is, “What motivates (or does not motivate) women to start and keep getting prenatal care?” I will also ask you your age, zip code, race/ethnicity, how many times you have been pregnant, when you are due to have your baby, and what your health care insurance is. If you would like to preview a copy of all of the questions that I will ask you, please let me know.

Benefits and Risks: I believe there are no direct benefits to you if you participate in my research project. However, the results of this project might help me and other researchers learn more about what women might expect of their prenatal care and whether or not we (health care providers and communities) are meeting those expectations. I believe there is little or no risk to you if you participate in this project. If, however, you are uncomfortable or stressed by answering any of the interview questions, we will skip the question, or take a break, or stop the interview. Also, you can withdraw from the project altogether at any time.

Confidentiality and Privacy: If you decide to participate in the study, you will be given a study identification number that will be used instead of your name to identify your responses to the questions. During this research project, I will keep all data from the interviews in a secure location. Access to the data includes me, content analysis experts, and a transcriptionist, although
legally authorized agencies, including the University of Hawai‘i Human Studies Program, have the right to review research records.

After I, or my transcriptionist, transcribe the interviews, I will erase the audio-recordings. When I report the results of my research project, and in my typed transcripts, I will **not** use your name or any other personally identifying information. Instead, I will use your study identification number. If you would like a summary of the findings from my final report, I can provide that for you if you let me know.

**Voluntary Participation:** Participation in this research project is voluntary. You can choose freely to participate or not to participate. In addition, at any point during this project, you can withdraw your permission without any penalty of loss of benefits.

**Questions:** If you have any questions about this project, please contact me at via phone (808) 2869756 or e-mail (annette.manant@gmail.com). You may also contact my supervising professor, Maureen Shannon at 808 9564917 or email (maureens@hawaii.edu). If you have any questions about your rights as a research participant, in this project, you can contact the University of Hawai‘i, Human Studies Program, by phone at (808) 956-5007 or by e-mail at uhirb@hawaii.edu.

Please keep the prior portion of this consent form for your records.

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Tear or cut here

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**Signature(s) for Consent:**

I agree to participate in the research project entitled, *Women’s Voices: Prenatal Care Expectations of Women Living in Rural Hawai‘i*. I understand that I can change my mind about participating in this project at any time by notifying the researcher.

**Your Name (Print):** _______________________________________

**Your Signature:** ___________________________________________

**Date:** _________________________________
Appendix E. Flyer and Recruitment Letter

The University of Hawai‘i, Manoa is conducting a study: 
Women’s Voices: Prenatal Care Expectations of Women Living in Rural Hawai‘i

- Are you pregnant for the first time, at least 20 years old, and live on the Island of Hawai‘i?
  - If the answer is YES:
    Annette Manant, MN, ARNP, CNM researcher would like to invite you to participate in an interview-only research study.

The purpose of this study is to learn about pregnant women’s expectations and experiences of their prenatal care in the community in which they live. The study is a doctoral dissertation study.

Study interviews will take place at convenient locations near where you live or work. One tape recorded face-to-face interview will take place, lasting about one hour. A follow-up telephone call may also be part of the study. Participation in the study and all responses to the questions asked will be confidential.

- A summary of the results of the interviews will be available to you at the end of the study.
- A gift as a sign of appreciation of your participation will be given to you at the time of the interview.
- To learn more about the study, please call Annette Manant, researcher at 808 2869756 or email me at annette.manant@gmail.com

UH IRB Approval Date: July 11, 2013
Recruitment Letter to the Community

Date
Dear _______________

My name is Annette Manant. You may know of me as one of the Certified Nurse Midwives at Waimea Women’s Center, North Hawai‘i Community Hospital. I am also a doctoral candidate at the University of Hawai‘i at Manoa (UH), in the School of Nursing and Dental Hygiene. I am doing my doctoral study on maternal health in North Hawai‘i on the Island of Hawai‘i. I would like to ask you for your help in recruiting participants for my qualitative research study that I am doing.

The purpose of this study is to learn about pregnant women’s expectations and experiences of their prenatal care in the communities in which they live. I am hoping to interview women who are pregnant and considering using prenatal care for the first time, in the early part of their pregnancies, are English speaking, and at least 20 years of age. A modest gift card of $20.00 to be use at a local business will be given to each participant to acknowledge her time spent in the study.

**Project Description - Activities and Time Commitment:** Participants will be interviewed face-to-face at convenient locations. The interviews will last about one hour. I will record the interviews using a digital audio-recorder. One example of the type of questions that I will ask is, “What motivates (or does not motivate) women to start and keep getting prenatal care?” I will also ask women their ages, zip codes, race/ethnicity, how many times they have been pregnant, when their babies are due, and what health care insurance they have.

**Benefits and Risks:** I believe there are no direct benefits to participants. However, the results of this project might help me and other researchers learn more about what women might expect of their prenatal care and whether or not we (health care providers and communities) are meeting those expectations. If participants are uncomfortable or stressed by answering any of the interview questions, I will skip the question, or have them take a break, or stop the interview. Also, participants can withdraw from the project altogether at any time.

**Voluntary Participation:** Participation in this research project is voluntary. Women can choose freely to participate or not to participate. In addition, at any point during this project, women can withdraw.

If you know of any women who might be willing to participate in this study, please give her the enclosed flyer or give her my phone (808) 286-9756 or e-mail address (annette.manant@gmail.com). If a woman would like you to contact me for her, that is acceptable also.

Sincerely,

Annette Manant, CNM

808-286-9756   email annette.manant@gmail.com
Appendix F. Interview Questions and Probes

A. What do pregnant women living in rural areas of Hawai‘i expect from prenatal care?
What do you expect from prenatal care?
What were you hoping to get out of prenatal care?
Can you tell me a little about what does prenatal care mean to you?
You are involved in having prenatal care; what does this mean to you?
What are women interested in finding with prenatal care?
What do you think about the process of coming into prenatal care, how did you decide to begin?
What do you think about this process of coming into care before the baby is born? How do you see this?
What influences this process of coming into care? How do women see this process, how do they feel about it?
What do you do when you become pregnant?
When I say prenatal care, what do you think of?
What motivates (or does not motivate) women to start prenatal care?
What kind of help would encourage women in your community to get prenatal care?
(If applicable): Can you tell me about why you are not receiving prenatal care at this time?

B. Are these women’s expectations about prenatal care being met?
Are your expectations being met?
What motivates or does not motivate women to keep getting prenatal care?
What would encourage women in your community to keep getting prenatal care?

C. A final question may be asked: Could you tell me what it was like for you to be interviewed or to participate in this study?

# Appendix G. Data Analysis Results

## Level I Open Codes (n = 91)

<table>
<thead>
<tr>
<th>Open Code List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting into a community of other moms</td>
</tr>
<tr>
<td>Looking for resources of people to help me through the whole process</td>
</tr>
<tr>
<td>Looking for a place where it is safe to ask questions about ones pregnancy</td>
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<tr>
<td>Want prenatal support to figure things out</td>
</tr>
<tr>
<td>Sharing stories to learn</td>
</tr>
<tr>
<td>Looking for group sharing sessions</td>
</tr>
<tr>
<td>Seeking resources to learn about being good parents</td>
</tr>
<tr>
<td>Prenatal care as a resource</td>
</tr>
<tr>
<td>Using resources not from a place of fear, but for knowledge</td>
</tr>
<tr>
<td>Information seeking</td>
</tr>
<tr>
<td>Seeking knowledge</td>
</tr>
<tr>
<td>Continuing prenatal care depends on the information being accurate and interesting</td>
</tr>
<tr>
<td>Continuing prenatal depends on women feeling in control and having choices in their care</td>
</tr>
<tr>
<td>Wanting support due to being far away from family</td>
</tr>
<tr>
<td>The whole process is new to me</td>
</tr>
<tr>
<td>I’m a very research type of person</td>
</tr>
<tr>
<td>Feeling unsafe around doctors</td>
</tr>
<tr>
<td>Not having support to figure things out</td>
</tr>
<tr>
<td>No role models</td>
</tr>
<tr>
<td>Being unable to care for self during pregnancy due to time demands</td>
</tr>
<tr>
<td>Not having been around pregnant friends or family</td>
</tr>
<tr>
<td>Feeling isolated</td>
</tr>
<tr>
<td>Limited care choices on the island</td>
</tr>
<tr>
<td>Looking for another kind of system (lack of trust in a hospital system)</td>
</tr>
<tr>
<td>My body knows how to do</td>
</tr>
<tr>
<td>Pregnancy is not a burden or a sickness</td>
</tr>
<tr>
<td>Desire to be healthy and to enjoy this process</td>
</tr>
<tr>
<td>Feeling positive about prenatal care decisions</td>
</tr>
<tr>
<td>I want to do everything right</td>
</tr>
<tr>
<td>Beyond prenatal care; care in the sense of being healthy; self care</td>
</tr>
<tr>
<td>Prenatal care is not just about the baby’s health, it’s about you (the pt) and what you want and what’s best for you</td>
</tr>
<tr>
<td>Not getting prenatal care never crossed my mind</td>
</tr>
<tr>
<td>If resources are available use them; they are there to make sure you and the baby are healthy</td>
</tr>
<tr>
<td>Lack of prenatal care can lead to things that could be prevented; preventing harm is the point</td>
</tr>
<tr>
<td>Preventing harm if things go wrong</td>
</tr>
<tr>
<td>Birth place choices dictate prenatal provider choice</td>
</tr>
<tr>
<td>Choice of place of birth beginning of thinking about prenatal care</td>
</tr>
<tr>
<td>Women have different expectations</td>
</tr>
<tr>
<td>Having high expectations (about prenatal care)</td>
</tr>
<tr>
<td>Optimistic about everything working out okay</td>
</tr>
<tr>
<td>Prenatal care is important</td>
</tr>
<tr>
<td>Expecting most current technology</td>
</tr>
<tr>
<td>Desire for home birth motivating the type of provider for prenatal care</td>
</tr>
<tr>
<td>What is happening to her body and her baby drives her to find prenatal care</td>
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<td>Going to the doctor for health is not a given for me</td>
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<tr>
<td>Tests don’t determine if you are healthy</td>
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<tr>
<td>They (women) expect to be told what to do</td>
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<tr>
<td>Taking the power away from women</td>
</tr>
<tr>
<td>Injustice against women and babies</td>
</tr>
<tr>
<td>Making injustices normal</td>
</tr>
<tr>
<td>Going to the doctor is a given</td>
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<tr>
<td>Normal expectation is to see a doctor for pregnancy</td>
</tr>
<tr>
<td>Family not supportive of a planned home birth</td>
</tr>
</tbody>
</table>
Money/insurance influence the decision of where to get prenatal care
Influence of family on seeking prenatal care
Out of their comfort zone (family about home birth)
Difficulty with getting insurance; poor communication; missed calls from insurance company
Insurance hassles
Limited resources in the area for birth classes or meeting pregnant women
Desire for home birth insurance coverage
(A friend) more interested in newborn care that in the process of pregnancy and birth
Home birth and midwife care is normal for her friends
Would pay out of pocket for the care she is looking for
Making a different decision about place of delivery not covered by insurance
Some women believe) what’s the point (of prenatal care, of physician care)?
Waste of time
A professional who takes into account all pregnancy details and then formalizes an answer/plan
Looking for a provider who sees pregnancy as a natural process and a positive thing
Expecting a positive personality
Trusting in a provider
Time to talk and not be rushed through a medical system
Expecting more natural approach
Finding the right provider as a priority of prenatal care
Expecting a provider who can offer all that is available
Felt good about prenatal appointments
Personalized care
The midwife is really vested in her job
Talked about feelings, not just problems and fixing problems
Nice to have a connection
Midwife spent a lot of time with pt
Complementary remedies are discussed
Prenatal topics are discussed for that stage of pregnancy
I like all the information
The midwife said that nobody misses their appointment with her; it’s nice, I look forward to going
Dissatisfied with care
No connection, felt really cold
Appointment too short, kinda curt
It’s good to have someone listen
It was nice to talk about it
I like that my voice is being heard and the idea of amplifying my voice; I like to share ideas with people
I wanted to participate…to express my concerns and my frustrations of a new mom living in Hawaii

<table>
<thead>
<tr>
<th>Level II Axial Codes (n = 11)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What participants were looking for in prenatal care in general.</strong></td>
</tr>
<tr>
<td>When participants thought about prenatal care, what it meant to them and what they were looking for in prenatal care in general (not provider specific).</td>
</tr>
</tbody>
</table>

| **Prior usual or neutral life experiences influencing prenatal care decisions** |
| These life experiences influencing prenatal care decisions are personal, lived experiences, not opinions that have a usual or neutral value given to the experience. |

| **Prior negative life experiences influencing prenatal care decisions** |
| These are personal, lived negative experiences, not opinions, that have a “negative” tone in the participants expression such as not, none, limited, lack of. |

| **Positive belief about self or system.** |
| These are positive expressions used to describe beliefs about self or system that can influence prenatal care decisions. |

| **Negative belief(s) influencing prenatal care decisions.** |
These are negative expressions to describe beliefs about self or system that can influence prenatal care decisions.

**Family/friends/society influence about prenatal care decisions; what is considered “normal”**.

**Family/friends/society influence about prenatal care decisions; what is considered different, difficult, or unusual.**

**What participants were looking for in providers of prenatal care**
- What participants are looking for with a prenatal care provider; these are specific wishes/desires; sentences contain “I'm looking for” or “I want” in a provider.

**What participants found with prenatal care providers that were positive**
- What participants found with prenatal care providers that were positive; these are experiential and specific.

**What participants found with prenatal care providers that were negative**.
- What participants found with prenatal care providers that were negative; these are experiential and specific.

**Experience of being interviewed**

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### Level III Categories (n = 11)

<table>
<thead>
<tr>
<th>Seeking knowledge</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The whole process is new to me</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Feeling unsafe; isolated</strong></td>
<td></td>
</tr>
<tr>
<td><strong>I want to do everything right</strong></td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td><strong>When you get pregnant, you go see the doctor</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Wanting control and choice</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Someone that is positive; that [pregnancy] is not a sickness to be managed</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Being able to connect</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Lack of connection</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Having a voice</strong></td>
<td></td>
</tr>
</tbody>
</table>

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### Level IV Themes (n = 4)

<table>
<thead>
<tr>
<th><strong>I want to do everything right</strong></th>
<th><strong>“My Body Knows How to Do”: The Normalcy of Pregnancy</strong></th>
<th><strong>Definition</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>My body knows how to do</td>
<td></td>
<td>These were statements that women gave about certain life experiences, beliefs, and/or family influences that supported women’s confidence in themselves as capable in pregnancy and in giving birth without a lot of medical interventions.</td>
</tr>
<tr>
<td>Pregnancy is not a burden or a sickness</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

100
Desire to be healthy and to enjoy this process
Feeling positive about prenatal care decisions
Beyond prenatal care; care in the sense of being healthy; self care
Prenatal care is not just about the baby’s health, it’s about you (the pt) and what you want and what’s best for you
Preventing harm if things go wrong
Expecting most current technology
Optimistic about everything working out okay
Not getting prenatal care never crossed my mind
If resources are available use them; they are there to make sure you and the baby are healthy
Lack of prenatal care can lead to things that could be prevented; preventing harm is the point

**Someone that is positive; that (pregnancy is not a sickness to be managed)**
A professional who takes into account all pregnancy details and then formalizes an answer/plan
Looking for a provider who sees pregnancy as a natural process and a positive thing
Expecting a positive personality
Trusting in a provider
Time to talk and not be rushed through a medical system
Expecting more natural approach
Finding the right provider as a priority of prenatal care
Prenatal care is important
Expecting a provider who can offer all that is available
Desire for home birth motivating the type of provider for prenatal care

**Being able to connect**
Felt good about prenatal appointments
Personalized care
The midwife is really vested in her job
Talked about feelings, not just problems and fixing problems
Nice to have a connection
Midwife spent a lot of time with pt
Complementary remedies are discussed
Prenatal topics are discussed for

However, if these women had concerns or problems encountered during pregnancy, they wanted to feel confident in the professionalism and knowledge base of their providers (*a provider who can offer all that is available*).

Participants were confident in themselves and the supportive role of prenatal care in helping them to achieve a natural birth.

By connecting with services or providers who shared similar beliefs, women looked forward to and had high levels of satisfaction with their care.
that stage of pregnancy
I like all the information
The midwife said that nobody
misses their appointment with
her; it’s nice, I look forward to
going

<table>
<thead>
<tr>
<th>Seeking Knowledge</th>
<th>Seeking Knowledge; Seeking Choices</th>
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</tbody>
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**The whole process is new to me**
The whole process is new to me
I’m a very research type of person
Want prenatal support to figure things out
What is happening to her body and her baby drives her to find prenatal care
Wanting support due to being far away from family

**I want to do everything right**
I want to do everything right
Birth place choices dictate prenatal provider choice
Choice of place of birth beginning of thinking about prenatal care

**Feeling unsafe, isolated**
Being unable to care for self during pregnancy due to time demands
Not having been around pregnant friends or family
Feeling isolated
Limited care choices on the island

Women had a strong desire to learn all they could about being healthy and having a healthy baby (*I want to do everything right)*.

The accuracy and relevance of that care influenced their continuing prenatal care.

By seeking and finding a variety of prenatal care models and services, women actively sought out the kinds of care they wanted (getting into a community of other moms; sharing stories; looking for a place where it is safe to ask questions).

Some women who had prior negative experiences with certain types of care providers (physicians and hospitals in general) expressed that they were worried about feeling unsafe and isolated. Having choices (out of hospital birth and midwives) was very important to them.

Barriers to the care and services came from a lack of resources from living on an island, insurance company restrictions on covered services, and sometimes the strong opinions of families. Some women were able and chose to pay out of pocket for the kinds of services they wanted when these services were not covered by insurance (e.g. homebirth services)
<table>
<thead>
<tr>
<th>Looking for another kind of system (lack of trust in a hospital system)</th>
<th><strong>When you get pregnant you go see the doctor</strong></th>
</tr>
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<tr>
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<tr>
<td><strong>Feeling Unsafe and Isolated</strong></td>
<td>Tests don’t determine if you are healthy</td>
</tr>
<tr>
<td>Feeling unsafe around doctors</td>
<td><strong>“What's the Point?” When Care During Pregnancy Is Not Satisfying</strong></td>
</tr>
<tr>
<td><strong>Taking Power Away from Women</strong></td>
<td>Women were concerned about not being satisfied with prenatal care or not connecting to one’s provider. One expressed this as “What’s the point?”</td>
</tr>
<tr>
<td>They (women) expect to be told</td>
<td>What is the point of going to prenatal visits when the care is dissatisfying, unhelpful, with poor communication between the provider and the pt.? Another described this dissatisfaction as the</td>
</tr>
<tr>
<td>Section</td>
<td>Details</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| what to do                        | Taking the power away from women  
Injustice against women and babies  
Making injustices normal |
| **Wanting control and choice**    | Some women believe) what’s the point (of prenatal care, of physician care)?  
Waste of time |
| **Lack of Connection**            | Dissatisfied with care  
No connection, felt really cold  
Appointment too short, kinda curt |
| **Having a Voice**                | It’s good to have someone listen  
It was nice to talk about it  
I like that my voice is being heard and the idea of amplifying my voice; I like to share ideas with people  
I wanted to participate…to express my concerns and my frustrations of a new mom living in Hawai‘i |

In response to the inquiry about being interviewed, participants expressed satisfaction with being asked and being heard regarding their prenatal care expectations. I wanted to participate, to express my concerns and my frustrations of a new mom living in Hawai‘i.