

**THE ROLE OF THE NURSE PRACTITIONER IN THE  
IMPLEMENTATION OF GROUP PRENATAL VISITS FOR ABORIGINAL WOMEN:  
EXPLORING A NEW TYPE OF CARE**

by

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### **Abstract**

Nurse Practitioners in British Columbia have an opportunity to introduce an innovative model of prenatal care for Aboriginal women. BC Aboriginal women are at greater risk for pregnancy complications than non-Aboriginal women are. Prenatal care has traditionally offered standardized individual visits for every pregnant woman, regardless of their needs, preferences, or culture. Nurse practitioner (NP)-facilitated group prenatal visits (GPVs) have the potential to provide culturally relevant and accessible prenatal care. An integrative review of the literature demonstrates that by using the Centering Pregnancy model of group prenatal care, NPs can provide relevant, holistic, and safe GPVs. Group prenatal visits can improve the experience of prenatal care for Aboriginal women in British Columbia. Further research is recommended to explore the outcomes of NP-facilitated GPVs and define culturally relevant and safe prenatal care according to BC Aboriginal women.

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### Glossary

Aboriginal	A collective name that refers to the First Nations, Métis, and Inuit people of Canada
CHR	Community Health Representative; a health support person within an Aboriginal community
CRNBC	College of Registered Nurses of British Columbia
Cultural competence	The non-Aboriginal health professional's knowledge and understanding of the Aboriginal culture they work with. The focus is primarily on the health professional's skills, knowledge, attitude and ability to interact and communicate with another cultural group (ANAC, 2009, p. 24; Brascoupé & Waters, 2009)
Cultural relevance	Applicability to the needs of a specific culture as defined by a cultural group
Cultural sensitivity	The recognition of the importance of respecting differences between one's culture and another (ANAC, 2009, p. 24)
Cultural safety	The transfer of power to determine what is safe and successful health care from the health care provider to the health care recipient (ANAC, 2009, p. 24; Brascoupé & Waters, 2009)
GP	General Practitioner; refers to a family physician or family doctor who practices medicine
Group prenatal visit	Prenatal education that is combined with medical checkups in a group setting with a primary health provider, such as a nurse practitioner
Holistic	In the context of nursing, refers to medicine based on the physical, mental, emotional, and spiritual aspects of a person
Non-Status Indians	Canadian people who consider themselves Indians or Aboriginals, but whom the federal government does not recognize as Status Indians (Health Canada, 2003)
NP	Nurse Practitioner; within British Columbia, health professionals who are educated at a master's level and registered with CRNBC, provide holistic primary health care from a nursing perspective, and have the qualifications to diagnosis diseases and prescribes medications, and order specified diagnostic tests and procedures

Primary Care	The element within primary health care provided by medical practitioners that focuses on first line clinical services (Health Canada, 2006)
Primary Health Care	Includes primary care, but a more comprehensive, holistic, community-based, and multidisciplinary approach to health care that includes all services that play a part in health, such as income, housing, education, and environment (Health Canada, 2006)
RN	Registered Nurse; within British Columbia, RNs must be registered with the College of Registered Nurses of British Columbia (CRNBC, 2011). RNs must have a baccalaureate degree, complete a national exam, pass a criminal record check, and be of good moral standing (CRNBC)
Reserves	Parcels of land held by Canada on behalf of the First Nations people of Canada (Waldram, Herring, & Young, 2007, p.11)
Routine prenatal office visit	A standardized medical visit with a physician, midwife, or nurse practitioner during pregnancy that is brief and consists of a physical exam and covers routine topics/questions. Visits occur routinely once a month until 7 months, then every 2 weeks, then every week in the last month of pregnancy.
Status Indians	Canadian Aboriginal people who are registered as "Indians" with the federal government, as determined by certain criteria in the Indian Act of 1985 (Adelson, 2005)

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## Introduction

This paper will explore how nurse practitioner-facilitated group prenatal visits (NP-facilitated GPVs) can improve access to culturally relevant prenatal care for British Columbia's Aboriginal women. The Public Health Agency of Canada (PHAC) reports a shortage of maternity care providers within Canada, especially in rural and remote areas where many Aboriginal people live (PHAC, 2009). In 2009, only 0.9% of Canadian women received prenatal care from a nurse practitioner (PHAC). The number of BC nurse practitioners is growing and they can improve prenatal care accessibility in a culturally relevant way for Aboriginal women.

Prenatal visits in medical offices have not changed in years, and it is timely that methods of care be developed that are culturally relevant for Aboriginal women in BC. The routine prenatal office visit is generally very brief and task-focused, and does not leave much time for questions and interaction between the women, the family, and the caregiver. Routine prenatal office visits are effective and necessary for the general population of women with low-risk pregnancies, but prenatal care has room for improvement if it is to become more relevant for pregnant Aboriginal women.

BC Aboriginal women seeking prenatal care are the population of interest for the implementation of NP-facilitated GPVs. For the purpose of this paper, the term Aboriginal people is a collective name that refers to the First Nation, Métis and Inuit people of Canada. The rationale for interest in this topic is that Aboriginal women should have access to culturally relevant, respectful, and accessible prenatal care, which NPs can facilitate through GPVs. Additionally, the Aboriginal population in Canada is young and is rapidly growing, which means the number of pregnant Aboriginal women is also growing. Aboriginal fertility has

remained above the overall Canadian birth rate since the 1960s, and is currently one-and-a-half times higher than the Canadian birth rate today (Stats Canada, 2011). Aboriginal women are more likely to have pregnancy-related complications than non-Aboriginal women are and require close prenatal care (British Columbia Provincial Health Officer [BCPHO], 2009). This paper will discuss how the NP role can provide access to quality prenatal care, which is culturally appropriate and holistic, through GPVs for BC Aboriginal women.

It is argued that GPVs can provide a setting for nurse practitioners to provide more in-depth teaching, reach a larger clientele, and perform physical assessments in a culturally sensitive and culturally safe environment. NPs offer medical care that complements the current health care system. NPs bring an advance practice nursing lens to primary health care, which emphasizes health promotion and disease prevention. GPVs bring pregnant women together to one location for prenatal care, allowing the NP to provide care for a group of women within a relatively short amount of time and provide an opportunity for peer support. For example, a group of ten pregnant women in a 90-minute group session equals an average of nine minutes per patient. In reality, these ten patients will benefit from the entire 90-minute appointment time because they are learning in an interactive group setting. NPs can travel to reserves or to community buildings in Aboriginal communities to make prenatal care more accessible to those who have difficulty with transportation or feel more comfortable attending prenatal care close to home.

The aim of implementing focused GPVs for pregnant Aboriginal women is to provide prenatal care and group-based education related to their cultural context and topics of interest. An important anticipated outcome for GPVs is consistent, accessible prenatal support and care for this growing population. An examination of the current literature is brought together to answer

the question: For pregnant BC Aboriginal women, can NP-facilitated GPVs, as compared to routine prenatal office visits, provide more culturally relevant and accessible care?

### **Background and Context**

The following section will describe the effects of colonization on Aboriginal people, Aboriginal beliefs and values, and current health inequities BC Aboriginal people face. The author will also explain the role of BC NPs and explain how they contribute to the health care system within the context of maternal health for Aboriginal women.

### **Canadian Aboriginal History**

**Colonization and Its Effects.** It is important that health care providers, including NPs, have an awareness of how the long history of colonization, discrimination, and experiences including residential schools has negatively affected Aboriginal families and their children. These experiences are the root cause of inequities in health for Aboriginal peoples (BCPHO, 2009). The following section will briefly outline the history of Canadian Aboriginal colonization as it helps the reader understand why many Aboriginal people face health concerns and social-economic challenges.

Before the Europeans arrived in North America, thousands of Aboriginal people were living in what would become the country of Canada (Waldram, Herring, & Young, 2007). The Aboriginal people lived off the land primarily by hunting game, fishing, and gathering food such as berries, nuts, lichens and seasonally available food (Waldram, Herring, & Young). Since the first contact with Europeans, many changes have occurred to Canadian Aboriginal culture.

The initial encounter with Europeans was linked to fur traders and missionaries. Aboriginal people became involved with the fur trading industry as it benefited them (Waldram et

al.). Beaver pelts were exchanged for European goods such as knives, pots, and guns, which improved the way they lived. However, gradually Aboriginal people became irreversibly dependent upon European trade and technologies (Waldram et al.).

European missionaries had a large influence on Canadian Aboriginal people when they arrived in North America. The European missionaries desired to “save the souls” of Aboriginal people and convert them to Christianity, as they were seen as “savages” (Waldram et al.). This was a dominant theme throughout the post-contact historical period. Aboriginal people were forced to put aside their own cultural beliefs and patterns and assimilate to the patterns and beliefs systems of the Europeans (Waldram et al.).

In 1867, Canada formed a nation and the Catholic, Anglican, Methodist, and Presbyterian churches were given control of Aboriginal education (Waldram et al.). The Aboriginal leaders of the time acknowledged that education was important for their children with the changing times. Unfortunately, a large part of the schooling system required that Aboriginal children be separated from their families, and therefore their culture. Not all Aboriginal children experienced the church-run school system, but the minority that did became “deculturized” because they were separated from their parents and their culture (Waldram et al.). Some students experienced physical, emotional, and sexual abuse in the schools, which the Canadian government and churches now recognize (Waldram et al.).

For nearly one hundred years, the residential school system was part of the lives of many Aboriginal people (RCMP, 2011). This experience led to a loss of culture, identity, spirituality and basic social and family skills for many Aboriginal people (RCMP). As a result, Canadian

Aboriginal people are experiencing inter-generational symptoms such as substance abuse, poverty, violence, abuse, isolation and health issues (RCMP).

These events in Canadian Aboriginal history have made it difficult for many Aboriginal people to trust Canadian institutions. Oppressive acts, such as the banning of traditional ceremonies and the enforcement of residential schools by the Canadian government and churches, have made some Aboriginal people secretive about their culture. Many Aboriginal people have been and may still be suspicious of the Canadian government's motives when new programs are developed for Aboriginal people. Understanding the background and context of Aboriginal peoples will assist health care providers, including nurse practitioners, approach the creation and implementation of programs for Aboriginal people in light of the effects of colonization.

### **Health Inequities for Aboriginal Women and Pregnancy**

The following section will discuss health inequities for pregnant Aboriginal women. These inequities are risk factors for pregnant Aboriginal women and highlight areas of need that GPs can address. These health inequities are largely a result of the long-term effects of colonization and power imbalances between Aboriginal women and the health care system.

There are many trends in the literature regarding pregnant Aboriginal women including poverty, poor prenatal attendance, low and high infant birth weights, prevalence of smoking, obesity, and high infant mortality rate. Aboriginal populations in Canada are many and diverse and these trends are generalizations based on available literature. Canadian Aboriginal childbearing women experience more complications and poorer outcomes when compared to

Canadian non-Aboriginal childbearing women (Brennand, Dannenbaum, & Willows, 2005; BCPHO, 2009).

Wenman, Joffres, and Tataryn report that pregnant Aboriginal women generally experience poorer birth outcomes including higher rates of prematurity, low-birth-weight infants, and stillbirths when compared with other Canadian women. They found that Aboriginal mothers have a higher prevalence of smoking, poor nutrition, low income, previous premature infant and bacterial vaginosis than do non-Aboriginal mothers (Wenman et al., 2004). Pregnant Canadian Aboriginal women are entitled to excellent prenatal care, education and resources to improve pregnancy and birth outcomes. The following section will describe barriers to health for Aboriginal women, including social determinants of health, maternal and child health outcomes, and harmful health behaviors.

**Poverty.** In BC, Aboriginal people account for between 4.4 and 4.8 % of the total population. Higher proportions of the Aboriginal population live in poverty and are single parents compared to the non-Aboriginal population (BCPHO, 2009). In 2001, 58% of single-parent Aboriginal females, compared to 33% of non-Aboriginal females, made less than \$20,000 per year. For single-parent Aboriginal males, 44% compared to 20% of the non-Aboriginal population, earned less than \$20,000 per year (BCPHO). Research has extensively shown the association between poor socio-economic status and poor health (BCPHO). Poor health for infants and children is generally a result of parents' low income levels and education levels (BCPHO).

Pregnant women who are at low-income levels are at risk for poor pregnancy outcomes (Brennand, Dannenbaum, & Willows, 2005). There is a high prevalence of obesity, type 2

Diabetes Mellitus, Gestational Diabetes Mellitus (GDM), and infant macrosomia (excessive birth weight) among pregnant Aboriginal women (Brennand, Dannenbaum, & Willows, 2005).

Researchers Wenman, Joffres, Tataryn and the Edmonton Perinatal Infections Group (2004) found that the Aboriginal population generally has a high rate of smoking, poor nutrition, low income, history of premature infants and bacterial vaginosis. Poverty is an overarching determinant of health for Aboriginal women that effects how they experience pregnancy and their ability to access prenatal care.

**Aboriginal Women and Low and High Birth Weights.** Birth weight is generally a strong predictor of infant mortality and newborn health. Both low and high birth weights increase the risk of adverse maternal-fetal outcomes (Brennand, Dannenbaum, & Willows, 2005). The traditional definition of low birth weight is less than 2500grams and high birth weight greater than 4000grams (Varney, Kriebs, & Gregor, 2004). Low birth weight and high birth weights can lead to serious complications for both mother and baby. In 1999, 22% of Aboriginal infants in Canada had high birth weight, almost twice the non-Aboriginal rate (Adelson, 2005). Babies with low birth weight comprised 6% of Aboriginal births in Canada, slightly higher than the non-Aboriginal rate, which is 5.6% (Adelson, 2005).

In Canada, Aboriginal women tend to have a higher rate of low birth weight babies, but this percentage has decreased over time and becoming more similar to the rate of non-Aboriginal infants (Thommasen et al., 2005). Factors that increase the incidence of low birth weight infants include poor prenatal care, socioeconomic disparities, and short intervals between pregnancies, smoking or exposure to second-hand smoke, stress and lack of support and carrying multiples (Ottawa Coalition for the Prevention of Low Birth Weight, 2007). Maternal risk factors for low birth weight infants include mothers less than 18 or greater than 35 years old, primiparity (first

time pregnancy) or more than three pregnancies, participating in manual or non-manual work, less than 158 cm tall, attending prenatal care after 18 weeks' gestation, having diabetes or urinary tract infection, having preeclampsia, hemorrhage, being a smoker, being of Asian descent, and having a history of infertility (Thommasen, Klein, Mackenzie, & Grzybowski, 2005). Aboriginal women who face social hardships including low-income levels, poor nutrition, high stress, and exposure to smoke evidently have an increased chance of having a low birth weight baby.

The aforementioned low birth weight statistics are supported by a study conducted in Bella Coola, a rural coastal town in BC, regarding perinatal outcomes of Aboriginal and non-Aboriginal mothers and infants (Thommasen et al., 2005). Statistics on hospital births and outcomes were gathered from March 7, 1940 to June 9, 2001 in the Bella Coola General Hospital (BCGH). Initially low birth weight rates for Aboriginal women were higher than non-Aboriginal women, but the percentage declined over time to a rate similar to non-Aboriginals (Thommasen et al.). This decline in low birth weight may reflect improved health, nutrition and living conditions for pregnant women; improvements in prenatal care; better spacing of children; and improved cooperation between physicians and specialists (Thommasen et al.). Despite similar numbers between Aboriginal and non-Aboriginal low birth weights, research has shown that Aboriginal infants with low birth weights have a higher mortality rate than non-Aboriginal infants (Adelson, 2005).

**Aboriginal Women and Obesity.** A history of colonization, discrimination, and negative experiences such as residential schools has led to adverse health effects on Aboriginal families (BCPHO, 2009). Obesity is one of the health concerns for pregnant Aboriginal women. From 1998-2004, over half of BC Aboriginal women with status on reserve (53.2%) and nearly half of

Aboriginal women off reserve (45.9%) had an overweight body mass index (BMI) before pregnancy (BCPHO). There is some evidence that excessive weight gain during pregnancy and weight retention following childbirth are more prevalent among Aboriginal than non-Aboriginal women (Brennand, Dannenbaum, & Willows, 2005). Brennand, Dannenbaum, and Willows (2005) concluded in their study that the Cree women who were overweight or obese before pregnancy were at increased risk for cesarean section, GDM, impaired glucose tolerance, preeclampsia, and large birth weight infants, when compared with women who began pregnancy with normal weight.

Colonization has negatively affected Aboriginal cultural practices that supported a healthy weight before and during pregnancy (BCPHO, 2009). Within many Aboriginal groups, physical work and moderate exercise during pregnancy were considered healthy practices to prepare women physically for childbirth (Sokoloski, 1995); however, there has been a loss of Aboriginal teachings and traditions. There is a present need for culturally relevant prenatal care that teaches Aboriginal women how to incorporate healthy practices into their lifestyle to decrease the incidence of obesity and its associated complications.

**Aboriginal Women and Smoking during Pregnancy.** Another serious health concern for pregnant Aboriginal women is cigarette use. Smoking during pregnancy is a prevalent problem amongst Aboriginal women (Heaman & Chalmers, 2005). Smoking is one of the most significant, yet preventable causes for adverse pregnancy outcomes. Smoking during pregnancy can cause fetal growth restriction, preterm birth, spontaneous abortion, ectopic pregnancy, placenta previa, placental abruption, and stillbirth (Cnattinguis, 2004). Furthermore, babies born to mothers who smoke are more at risk to develop respiratory infections, asthma, and die from sudden infant death syndrome (SIDS) (Cnattinguis).

Researchers who studied smoking rates of Aboriginal and non-Aboriginal women in Manitoba showed that smoking during pregnancy was alarmingly more common among Aboriginal women (61.2%) versus non Aboriginal women (26.2%) (Heaman& Chalmers, 2005). Aboriginal women who reported smoking during their pregnancy were also likely to report alcohol and illicit drug use during pregnancy and incompletion of high-school (2005). Aboriginal and non-Aboriginal moms shared the following characteristics associated with smoking during pregnancy: low income, alcohol use during pregnancy, limited support, and inadequate prenatal care (Heaman& Chalmers). Between 1998 and 2004, smoking rates for BC Aboriginal women on and off reserve were 23.1% and 28.9% respectively (BCPHO, 2009). Cigarette smoking is the most common type of substance abuse reported by BC Aboriginal women during pregnancy (BCPHO).

**Infant Mortality Rate.** A common method of gauging the health of a community involves considering infant mortality rate. Infant mortality rate is a key indicator of the relative health status of a specific population. A higher than average infant mortality rate for Aboriginal people is the outcome of the numerous risk factors that were previously discussed. The infant mortality rate is calculated as the number of deaths of children less than one year of age per 1,000 live births. Infant mortality rates decrease when the mother's health and nutrition status improve and when she receives appropriate monitoring throughout the pregnancy (Adelson, 2005). In 2007, the Canadian infant mortality rate was 5.1 per 1,000 live births (Statistics Canada, 2011).

High infant mortality rates occur in Canadian provinces where the population of Aboriginal people is high. In 2007, Nunavut had the highest infant mortality rate at 15.1 per 1,000 live births. The infant mortality rate in the Yukon was 8.5 per 1000 live births, and in

Manitoba the rate was 7.3 per 1000 live births (Statistics Canada, 2011). Saskatchewan has a high infant mortality rate at 8.3 per 1000 live births, according to a 2008 Statistics Canada report (Warick, 2010). Experts speculate that this rate is elevated due to a high percentage of Aboriginal births in the province (Warick, 2010). In Saskatchewan, the two northern health authorities' rates were 10.5 and 14.5 per 1,000 live births (Warick, 2010). These rates are unacceptably high in comparison to the national rate and highlight the fact that Aboriginal infant mortality rates are unnecessarily higher than the national average.

The BC Aboriginal infant mortality rate has decreased from 11.8 per 1,000 live births in 1993 to 5.3 in 2006 (BCPHO, 2009), slightly above the national average. Regional data for 2002-2006 show that the Aboriginal infant mortality rate in BC was significantly higher than the rate for other residents in the Interior, Vancouver Coastal, and Vancouver Island Health Authorities (BCPHO).

The Aboriginal infant mortality rate has been decreasing since 1979 when it was 27.7 per 1000 live births (Adelson, 2005). These figures reflect improved maternal nutrition and access to prenatal care (Adelson, 2005) and support the argument for encouraging pregnant Aboriginal women to participate in culturally appropriate, evidence-based prenatal programs. Prenatal care must become more accessible to Aboriginal women in order to continue to decrease infant mortality rates.

**Aboriginal Women and Prenatal Care Accessibility.** Historically, research has shown that Aboriginal women do not regularly attend prenatal visits that are provided within the dominant, Euro-centric, biomedical health care framework (Sokoloski, 1995), despite the fact that they tend to have high-risk pregnancies. Sokoloski (1995) reports that 14.3% of Aboriginal

women receive fewer than four prenatal care visits, and 9.2% receive none. This implies that approximately 25% of Aboriginal women receive minimal to no prenatal care. Twice as many Status Indian mothers had inadequate prenatal care compared to other BC resident mothers from 1998-2004 (BCPHO, 2009). During this time, significantly more pregnant Aboriginal women initiated prenatal care after their first trimester, than did other BC residents who initiated prenatal care in their first trimester (BCPHO). A mere 39.2% of on-reserve and 47.5% of off reserve mothers began prenatal care in their first trimester (BCPHO).

“Adequate prenatal care” is defined as at least 9-15 prenatal visits during term pregnancy, and “more than adequate prenatal care” is defined as 16 or more visits (BCPHO, 2009). Between the years 1998-2004, Aboriginal women in B.C. had twice the rate of inadequate prenatal care than other B.C. residents (BCPHO). The rate was worse for on-reserve mothers (35.4%) compared to off-reserve mothers (23.0%) and other B.C. residents (12.0 %) (BCPHO).

Aboriginal women have identified that barriers to prenatal care include a dislike of vaginal exams, perceived miscommunication by health care workers, and lack of continuity of care, transportation difficulties, and perceived prejudice attitudes from health care workers (Sokoloski, 1995). Aboriginal women question the value of receiving prenatal care and the appropriateness of classes because they believe that the family has the main role of teaching. Bucharski, Brockman, and Lambert (1999) found that because pregnancy is viewed as a normal event, Aboriginal women are not motivated to attend prenatal care.

Bucharski, Brockman, and Lambert conclude by stressing the importance of sensitizing health care providers to cultural issues and communication behaviors to reduce health care barriers and improve programs and services to be more culturally sensitive. Sokoloski’s article

suggests that Aboriginal women embrace a natural approach to pregnancy and rely on traditional practices to sustain healthy pregnancies (1995).

In light of all the challenges that exist for pregnant Aboriginal women, it is shocking that those whose need is greatest for access to quality prenatal care are not receiving it. Not only are the challenges physical and social in nature, a significant challenge pregnant Aboriginal women face is a lack of holistic prenatal care that embraces Aboriginal culture and takes a strength-based approach. The author believes nurse practitioners should be forefront with Aboriginal communities in addressing this health care need for BC's Aboriginal women. NP-facilitated GPVs may attract Aboriginal women to prenatal care who may have otherwise avoided contact with the health care system due to past negative experience within the traditional medical model. The following section will describe Aboriginal beliefs and views of pregnancy to help provide a better appreciation of Aboriginal culture.

### **Aboriginal Beliefs and Views of Pregnancy**

An exploration of the values and beliefs for Aboriginal pregnancies can provide insight and evidence to support planning for change. If NPs intend to implement GPVs for Aboriginal women, they must have an understanding of Aboriginal childbirth beliefs and practices. NPs can achieve a better understanding of Aboriginal beliefs by learning about them through Aboriginal literature and through relationships with Aboriginal women. The following section will discuss Aboriginal beliefs and values in the context of pregnancy and childbirth. The information was collected primarily through Canadian articles and resources. The following discussion about Aboriginal beliefs and views of pregnancy is generalized and may differ between Aboriginal communities in BC.

Historically, Aboriginal cultures believed that pregnancy and childbirth were sacred events that were part of the natural cycle of life, governed by the Creator (Carroll & Benoit, 2004; Ross Leitenberger, 1998). The birth of a boy or girl represented new life and the powerful balance between the spiritual and physical worlds (Carroll & Benoit, 2004). A women's ability to birth and raise a child put her in a place of esteem, respect and authority within Aboriginal cultures (NAHO, 2004; Carroll & Benoit, 2004).

Aboriginal people believe that pregnancy is a normal, healthy process that requires no intervention. In a study of Canadian and American Aboriginal beliefs about pregnancy, Sokolinski (1995) found that Aboriginal women traditionally believe that pregnancy is a special gift from the Creator. Children are considered a treasure from the Creator and each one is welcomed and valued. Women are respected by the community and have special status because of their childbearing role. Pregnancy is not believed to be a sickness and women do not anticipate problems or difficulties during their pregnancy unless it has been their experience in the past. (Sokoloski, 1995).

Sokoloski (1995) also found that American First Nations women will not prepare for the arrival of their baby well in advance because they believe that injury, illness, or even death may come to the unborn child as a result. Women believe that by caring for their own health and nutrition, they are able to care for their babies while maintaining a normal work schedule through what they perceive is normal support (Sokoloski, 1995).

Aboriginals reserve the role of birth attendants for females, particularly older women such as a grandmother. Traditionally, female Aboriginal midwives played an important role in facilitating the childbirth process (Carroll & Benoit, 2004; NWAC, 2007). These midwives were responsible for passing traditional knowledge of value systems from one generation to the next

(Carroll & Benoit; NWAC). However, due to the effects of colonization and assimilation policies, respected traditional roles of women and Aboriginal midwives have been diminished. Many traditional Aboriginal customs have been lost and present-day Aboriginal midwives struggle to pass on surviving Aboriginal knowledge to their communities (Carroll & Benoit, 2001). This contributes to the loss of cultural identity among Aboriginal people (NAHO, 2004). Health Canada has recently found that being connected to one's own culture and ethnicity are key determinates of health for Aboriginal people (NAHO, 2008).

In the 1900's, the modernization of medicine in Canada resulted in predominantly male doctors assuming care for pregnant Aboriginal women (NAHO, 2004). This shift to male-dominated medicalized care conflicted with Aboriginal beliefs and inevitably affected Aboriginal health care for pregnant women. The public grew to believe that midwife-attended births were less safe than hospital births (NAHO). This resulted in a loss of traditional Aboriginal birthing practices and moved pregnancy care from Aboriginal communities to Western medical facilities (NAHO). Some First Nations believe that men should not attend the delivery of a child because the power of the birthing process can be harmful to the man. In addition, physicians are not seen as a necessary resource for a natural birth, but are appropriate when consultation is needed (Sokoloski, 1995).

In some Aboriginal nations, there is a belief that they will experience negative consequences if they breach traditional teachings surrounding pregnancy. For example, if a woman violates specific food restrictions she may have a difficult labour and her child may experience health complications. Women of the Carrier Nation of BC stated that raspberries are restricted during pregnancy because they are believed to cause "raspberry birthmarks," which are red blotches on the skin of babies (Ross Leitenberger, 1998, p. 79). Other customs reported

include avoiding negative sight, sounds, and actions, which are believed to pass to the unborn child (Ross Leitenberger, 1998).

Another belief is that inactive pregnant women will have a placenta that adheres to the uterus, or a baby that attaches to the womb following first and second stage of birth, both resulting in a difficult labour. Some also believe that sensory experiences pass on to the fetus and that by listening to their bodies, they can determine what is helpful or harmful to themselves or their baby (Solokoski, 1995). Cultural customs vary between one community and the next, but there are also many similarities between Aboriginal communities (Ross Leitenberger, 1998).

**Medicine Wheel.** The Medicine Wheel is an ancient Aboriginal symbol that represents a variety of Aboriginal realities and worldviews (Verniest, 2006). Today, the general Medicine Wheel model is found throughout Canadian Aboriginal culture as an analytical tool to explain determinants of health within an Aboriginal context (Waldram et al.). Not all Medicine Wheels are the same, but they typically consist of four quadrants that represent the four directions (Waldram et al.). Within the framework of health, these four quadrants represent the concept of holism. Holism within the context of the Medicine Wheel refers to the physical, mental, emotional, and spiritual components of health (Verniest) (See Appendix A).

Culturally relevant prenatal care for BC Aboriginal women should be holistic, centering on the pregnant women's interests and needs. It should be respectful of customs and improve self-esteem and pride for Aboriginal woman (Smith, Edwards, Martens, & Varcoe, 2007). Nurse practitioners can look to the Medicine Wheel as a guide to approach prenatal care holistically. Prenatal care addressing not only physical needs, but also the mental, emotional, and spiritual needs of pregnant Aboriginal women will improve their experience with prenatal care. The

following section will describe the role of BC nurse practitioners who can provide access to holistic prenatal care.

### **Role of BC Nurse Practitioners**

The role of NPs is a relatively new addition to BC health care. In 2005, the first group of NP students graduated from BC graduate education programs and CRNBC began registering NPs in BC (CRNBC, 2005). NPs offer evidence-based practice to guide health promotion and disease prevention. BC NPs are nurses who have gained additional knowledge and training through Graduate education and are licensed with the College of Registered Nurses of British Columbia (Ministry of Health, 2006).

BC NPs bring a nursing focus of health promotion and prevention, population health, and primary health care in addition to their diagnostic and treatment care (CRNBC, 2011). NPs provide primary health care through a holistic advanced practice nursing perspective, and can diagnose, prescribe, order diagnostic tests and manage acute conditions and chronic illnesses (Ministry of Health, 2006). NPs manage common chronic and acute conditions, offer preventative health education and planning, and empower clients to take an active role in their health care decisions (Ministry of Health). On average, NPs spend more time with clients than physicians, which allows NPs to teach, counsel, and educate clients to a greater depth.

NPs improve access to health care for British Columbians. NPs work in a variety of practice settings where there is a health care need, including acute care, residential care, mental health care, and community and family practice. Many BC NPs work in underserved areas where there is limited access to a regular physician or midwife. BC NPs also work with underserved or

high-risk populations, including Aboriginal people and have a history of providing access to health care in northern parts of Canada.

NPs are not substitutions for physicians, but are autonomous practitioners that meet many of the primary health care needs commonly provided by physicians. The addition of BC NPs benefits physicians because nurse practitioners improve access to health care and increase health promotion and illness prevention for clients. Like their GP colleagues, BC NPs refer to specialists when responsibilities fall beyond their scope of practice (CRNBC). NPs work collaboratively with other health care providers as a valuable member of the health care team.

NPs leading GPVs can develop a multidisciplinary team with physicians and midwives based on the needs and preferences of the Aboriginal women and communities being served. Currently in BC, CRNBC has not set a specific gestational period when a family practice NP can provide prenatal care (2011). CRNBC states that this decision is made by the NP in consultation with the physician or midwife to whom they would refer the client for the delivery. This decision is made when a pregnant client first presents in the NP practice (2011). This leads to three possibilities:

- the NP assumes primary responsibility for prenatal care until an agreed gestation date;
- the physician or midwife assumes concurrent responsibility for some aspects of prenatal care;
- prenatal care is immediately transferred to the physician or midwife (CRNBC)

It is important that women participating in NP-facilitated GPVs develop a relationship with the physician or midwife who will attend their delivery. This is necessary because BC NPs

training includes prenatal and postpartum care but not labour and delivery care. However, in some remote BC communities, there are no physicians or midwives to provide prenatal care for Aboriginal women. NPs who work in these communities can help pregnant Aboriginal women stay in their communities longer, who would otherwise have to travel long distances to receive prenatal care. BC NPs must consult with a physician if a pregnant client develops gestational diabetes, gestational hypertension, or hyperemesis gravidarum (CRNBC, 2011). If these conditions develop, NPs can continue to monitor and support the client with physician consultation.

To conclude, BC NPs have the flexibility and leadership skills to implement GPVs for Aboriginal women. Due to time-restrictions and health care provider demands, routine prenatal office visits cannot offer the benefits of GPVs. By collaborating with Aboriginal women, communities, physicians and midwives, and other formal and informal care providers, BC NPs can take the lead to improve access to culturally relevant prenatal care for Aboriginal women through GPVs.

### **Theoretical Framework**

BC nurse practitioners have the potential to enhance health care experiences for pregnant Aboriginal women in BC through the implementation and facilitation of GPVs using the CenteringPregnancy model. The CenteringPregnancy model is a model of group health care that integrates health assessment, education and group support. Health practitioners facilitate a group of pregnant women in a series of prenatal sessions that include physical health assessments, educational discussions, and self-care activities that occur in a supportive, empowering atmosphere (Centering Health Institute, 2011). NPs have the opportunity to combine their skills and abilities with the CenteringPregnancy group prenatal care model to provide access

to excellent prenatal care for pregnant Aboriginal women. The following section will describe the Centering Pregnancy Model and how the NP fits into the model.

### **Centering Pregnancy Model**

The Centering Pregnancy model is a program that combines group prenatal education with the components of routine prenatal office visits. For the purpose of this paper, the term group prenatal education refers to private or public group education for pregnant women, taught by a health professional such as a Registered Nurse (RN). The term routine prenatal office visits refers to standard medical visits with a physician, midwife, or nurse practitioner during pregnancy. Routine prenatal office visits are generally brief, approximately 10-15 minutes long, and follow a standardized checklist created by the British Columbia Perinatal Health Program (BCPHP). Routine prenatal office visits typically consist of a blood pressure measurement, a urine analysis, uterine measurement, a count of the fetal heart rate, a few questions, and possibly forms for the women to see the laboratory or have an ultrasound. Routine prenatal office visits are standardized and brief so health care providers can see many clients a day.

Centering Pregnancy is a model of prenatal care that is on the forefront of health care system reform in the USA (Centering Health Institute, 2011). The innovative design offers pregnant women the opportunity to participate in health-care appointments focused on the common theme of childbearing. This model is built on the beliefs that (a) prenatal care is most effectively and efficiently provided in groups, (b) support and learning is enhanced in groups with the guidance of a professional care provider, and (c) high quality prenatal care can be difficult to achieve within the structure of standard one-on-one medical visits (Massey, 2006).

The CenteringPregnancy model provides the framework for BC NPs to initiate GPVs for Aboriginal women. NPs should apply their knowledge of Aboriginal beliefs about pregnancy to the CenteringPregnancy curriculum to create a more culturally relevant program. NPs should also elicit feedback from Aboriginal community members to ensure the content is appropriate.

**History of CenteringPregnancy Model.** The CenteringPregnancy model was conceived by Sharon Rising, CNM, MSN (Rising, 1998). The model evolved out of Rising's familiarity with multidisciplinary prenatal care literature and through her midwifery experience. In this context, Rising became aware that clients needed more comprehensive, culturally appropriate prenatal care (Rising, 1998). Rising tested the model with teens through a pilot program in 1993-1995 in a hospital clinic, a community health center, and a private office (Centering Health Institute, 2011). She found both women and staff responded positively to the program. Rising continues to assess, evaluate and implement the CenteringPregnancy model.

**Elements of CenteringPregnancy Model.** The CenteringPregnancy Model consists of three important elements: risk assessment, education/skill building, and support (Massey, 2006, Rising 1998). Risk assessment, or the routine prenatal office assessment, refers to the initial blood work, physical and pelvic examination, and thorough history taking that occurs with a primary health provider before entering the group. Within the group, clients participate in their assessment by weighing themselves, taking their blood pressure, checking their gestational age and recording their information. These self-care activities are taught to the pregnant women by the health professional and results are monitored for accuracy. This involvement in self-care activities allows clients to exert more control over their pregnancy care (Rising, 1998).

Education is the second important element of the CenteringPregnancy model. The need for extensive prenatal education has increased as health care providers become busier and hospital stays become shorter (Rising, 1998). Group sessions are broken into two or more formal discussion and education periods. Education topics range from early pregnancy concerns to postpartum and infant care concerns (See Appendix B for education topics). Education materials include handouts, worksheets, and videos. All topics are covered during group sessions, but emphasis on a particular topic is determined by the group needs (Rising, 1998). In this respect, the participants take a leadership role.

The third and final element of the model is support. This may be the most important element of the model because women who have a good support system tend to have more resources to help them solve problems (Rising, 1998). Support among clients grows as they meet over the span of the program. Clients and their partners bond with group members as they share their pregnancy experience with fellow group members. The group structure creates a relaxed, comfortable and friendly environment, which promotes respect and open communication (Massey, 2006).

Applied in the Aboriginal population, these elements of education and support can promote the passing of traditional Aboriginal knowledge from one generation to the next. Educational sessions must cover risk assessment to ensure client safety, but sessions can also include cultural topics taught by female Aboriginal leaders. This knowledge sharing can strengthen cultural identity and encourage Aboriginal women to have a voice.

**Group Facilitation in the CenteringPregnancy Model.** A knowledgeable health professional who is skilled at facilitating groups ideally leads CenteringPregnancy groups in

collaboration with Aboriginal communities. The author proposes that NPs facilitate GPVs using the CenteringPregnancy model. It is important that there is consistent leadership to ensure continuity of care and comprehensive content (Rising, 1998). Group participants are encouraged to invite their partner or support persons with them to GPVs. NPs should work with respected Aboriginal community members such as local elders, Community Health Representatives (CHRs), and Aboriginal doulas to co-facilitate sessions and contribute their cultural knowledge and experience. Additional professionals may be included to assist as group leaders, such as nutritionists, social workers, nurses, physicians, and midwives.

**Structure of CenteringPregnancy Model.** All prenatal care occurs within the group setting except for the initial prenatal assessment and those who have a “high-risk” pregnancy. At-risk women will need supplemental visits with an experienced NP, physician, or midwife for close monitoring (Rising, 1998). Women begin GPVs at around 12-16 weeks of gestation after their initial obstetric exam with their primary care provider (GP or NP). Group appointments are approximately 90 minutes versus the typical 10 to 15 minute office appointment (Walker & Worrell, 2008).

The program involves 8 to 12 female clients whose fetuses are approximately the same gestational age. GPVs consist of ten 90 to 120 minute group sessions that follows the usual prenatal schedule of 4-week visits until 28 weeks of gestation, and then bi-weekly visits until the last session (Klima, 2009). Each session is divided into at least two formal discussion and education periods led by the facilitator. Sessions also consist of self-care activities and private assessments. (See Appendix C for Flow of Group Prenatal Visits).

Women begin a session by completing self-care activities such as checking their blood pressure, weight, urine, and gestational age using a standard gestational age wheel (Klima, 2009). In the first 15 to 20 minutes of GPVs and during a midsection break, women spend approximately 3 to 5 minutes each with the NP for a private assessment. The NP will review vital signs, weight changes, urine analysis and assess the fundal growth and the fetal heart rate.

This private assessment occurs on a mat or low table and usually occurs in a corner of the room (See Appendix D for Suggested Room Set-up). This mat or table should allow the client and NP to be at the same level to avoid a sense of superiority (Klima, 2009). This individual time with the NP allows women to review their progress and share particular concerns (Rising, 1998). Meanwhile, soft music is playing; clients are completing their self-care activities and charting them, greeting others, and eating healthy snacks (Centering Health Institute, 2011).

The CenteringPregnancy model is a framework for NPs who want to provide access to GPVs for Aboriginal women. NPs can modify the CenteringPregnancy model to become more culturally relevant to the group, while maintaining the important elements of risk assessment, education/skill building, and support. NPs can incorporate aspects of Aboriginal culture, such as traditional food, customs, and symbols like the Medicine Wheel, into GPVs. NPs can plan activities to address risk factors pregnant Aboriginal women face, such as obesity. For example, a community member can teach nutrition and food preparation from an Aboriginal perspective. Respected female members of the Aboriginal community can provide traditional teaching and mentorship for childbearing women. Nurse practitioners should consult with Aboriginal community members to ensure GPVs are culturally relevant. To summarize, NPs can assist community members, including Aboriginal women, to empower themselves by engaging in the decision making process of their health care through active participation.

## **Literature Search Methodology**

A literature review was conducted to answer the PICO question, “For pregnant BC Aboriginal women, can NP-facilitated GPVs, as compared to routine prenatal office visits, provide more culturally relevant and accessible care?” Literature was retrieved through CINAHL, MEDLINE, and Cochrane databases using the keywords within the PICO question. For each of the following five research concepts, the following keywords and combinations were used:

### **1. Canadian Aboriginal women and pregnancy**

- Aboriginal women and pregnancy
- First Nations women and pregnancy/birth
- Birth experiences and Aboriginal and Canada
- Smoking and Aboriginal women
- Infant mortality rates and Canada
- Aboriginal women and health care
- Aboriginal/First Nations women and health care encounters

### **2. BC Nurse Practitioners**

- Nurse practitioners and BC
- Nurse practitioners and Aboriginal

### **3. Group prenatal care and CenteringPregnancy**

- CenteringPregnancy
- Group visits and prenatal care
- Group medical visits and prenatal care

### **4. Cultural relevance and safety**

- Culturally competent care and Aboriginal
- Cultural safety and Aboriginal

#### 5. Access to prenatal care in BC or Canada

- Prenatal experiences and Canada
- Aboriginal women and experience with health care providers
- Health care access and First Nations

Research that was included had to be relevant to the previously mentioned research concepts. Research was narrowed down initially by including those only with full text, but later included a few articles obtained through interlibrary loan. When a relevant article was found, the author would narrow down the search by using the “find similar results” function. The majority of the studies obtained for the literature review were published from the years 2000 to current, with the exception of two influential resources published in 1995 and one in 1999. Although old resources they are excellent because they are the only studies that concentrate on traditional Aboriginal beliefs about pregnancy and barriers to prenatal care. Studies that were not directly related to the topic were excluded, including studies in any languages other than English as the author is English speaking only. Additional studies were found through the reference list of sources relevant to the research question. Only one study from Australia and New Zealand literature was cited in this paper, even though these countries have produced research on Aboriginal women and pregnancy experiences. The author wanted to include literature as specific to Canadian Aboriginal women as possible.

GPVs are a relatively new concept in Canada, and specifically in BC, and a majority of the literature about GPVs comes from American sources. However, information about the use of group prenatal care and CenteringPregnancy in British Columbia was reviewed through the

British Columbia Women's Hospital (BCWH) website, the Birthdocs.ca website and the South Community Birth Program website. These three organizations provide group prenatal care for the Vancouver, BC area, however; they have not published their own research.

A general "Google" and "Google Scholar" search using the terms "Group Prenatal Care and Centering Pregnancy model" was conducted later in the process to ensure valuable articles were not missed. The Centering Healthcare Institute bibliography cites 31 articles. This yielded 7 new articles with a PDF attachment that were reviewed and included in this paper.

A "Google" search using the terms "cultural safety," "cultural relevance," and "cultural competency" plus "Canadian Aboriginal" and "British Columbia Aboriginal," led the author to several useful Canadian Aboriginal resources. These resources include the National Aboriginal Health Organization (NAHO), the Aboriginal Nurses Association of Canada (ANAC), the Journal of Aboriginal Health, and the Native Women's Association of Canada (NWAC). This search resulted in the use of one Integrated Review of the Literature by the ANAC, three articles published by NAHO, and one issue paper by the NWAC.

Governmental resources were utilized including those authored by BC Stats for Multiculturalism and Immigration, BC Ministry of Health, College of Registered Nurses of British Columbia, Fraser Health Authority, the Royal Canadian Mounted Police and Statistics Canada.

### **Findings**

The literature revealed the following issues facing Aboriginal women; marginalization within the health care system, poor prenatal attendance for at-risk pregnancies, and limited research on the experience of pregnant Canadian women. These themes reflect barriers to

prenatal care accessibility for Aboriginal women. Next, the literature also revealed suggestions for health care change, primarily, respect for Aboriginal people, and the implementation of a participatory model of care. These themes support the need for culturally relevant prenatal care for Aboriginal women. Finally, the benefits and limitations of the CenteringPregnancy model of prenatal care are examined, as it is the suggested model of participatory care for this project.

### **Barriers to Prenatal Care Accessibility**

**Marginalization of Aboriginal Women.** Dodgson and Struthers (2005) examined the ways in which Aboriginal people experience marginalization in the health care system. They conducted a qualitative study over a period of five years by interviewing indigenous Ojibwe, Cree, Winnebago, Lakota, Manitoban and Ontario women. The first theme they identified was that historical events negatively shape current realities (Dodgson & Struthers). These Aboriginal women referred to a history of European colonization, which resulted in present-day illnesses and lifestyle changes forced upon their ancestors. They stated that this change in lifestyle resulted in an increased risk of diabetes and cancer among their communities. Gestational diabetes mellitus (GDM) is a serious concern for Aboriginal women and babies with serious short and long-term consequences and prevalence of GDM is significantly higher than the general population (Cleary, Ludwig, Riese, & Grant, 2006). Adequate prenatal care and screening can prevent complications for mother and infants (Cleary et al., 2006).

Biculturalism was found to be a source of alienation and marginalization for Aboriginal women (Dodgson & Struthers, 2005). Study participants expressed the difficulty Aboriginal people have in compartmentalizing mainstream culture from traditional culture, and felt they must combine the two cultures in order to minimize their marginalization within mainstream

culture (Dodgson & Struthers). This may imply that some Aboriginal people will avoid contact with mainstream culture or healthcare because they do not feel comfortable and accepted in it. Health care programs need to provide a place where people feel their voices are heard and accepted for who they are without wearing “two hats.”

Within Aboriginal culture, family and knowledgeable community members are often consulted before a person seeks care from mainstream health care services (Dodgson & Struthers, 2005). This is an important insight to acknowledge because lack of prenatal participation may appear to be avoidance, but perhaps some Aboriginal women not involved in mainstream health care are actually seeking their own type of care within their community. For example, women may talk to their mothers or grandmothers about breastfeeding concerns rather than consulting their physician or nurse (Dodgson & Struthers). Additionally, some Aboriginal women feel that mainstream care providers do not understand their concerns and complexities of life, and therefore are distrustful of mainstream health care (Dodgson & Struthers). Trust comes when NPs show respect, listen attentively, and show genuine care when working with clients.

**No-Show Rate in High-Risk Obstetrical Clinic.** A study by Campbell, Chez, Queen, Barcelo, and Patron identified a high no-show rate in lower socioeconomic populations (2000). Many of the women missed appointments for reasons including lack of transportation, unsuitable appointment times, forgotten appointments, or a sick child or relative (Campbell et al.). The complications these women faced in their pregnancies ranged from hypertension, diabetes, HIV positive status, multiple pregnancies, advanced maternal age, bleeding, psychosis, epilepsy and drug abuse (Campbell et al.) The researchers identified a large gap in these women’s understanding of what is and is not harmful to their babies (Campbell et al.).

The most startling result that supports the use of educational group visits relates that 53% of these patients did not believe their conditions were potentially harmful to their babies (Campbell et al.). This statistic supports the need for more education. The authors go on to say that “the relationship of a patient’s cultural construction of pregnancy can affect her understanding and decision making related to the seeking and acceptance of prenatal care” (Campbell et al., p.893).

The study included predominantly female American citizens and a small percentage of migrant workers. These two groups of people are not known to be culturally averse to receiving prenatal care, yet these women poorly attended their appointments. Perhaps if their prenatal care included more education about the positive impact of regular prenatal care on their infants’ outcome, attendance rate and birth outcomes would improve.

This study shows that it is difficult for women of low socioeconomic status to attend prenatal care regularly. Many BC Aboriginal women live in poverty and therefore have difficulty attending prenatal care. The improvement of accessibility of prenatal care within an Aboriginal cultural construct is one of the primary reasons for this project.

**Limited Research on Experience of Pregnant Women.** There has been little information about the experiences of pregnant women in Canada collected through research. In 2002 and 2003, the Canadian Perinatal Surveillance System conducted a project called “The Maternity Experiences Survey” to provide insight into the Canadian women’s maternity experiences (Dzakpasu & Chalmers, 2005). A random sample of 291 mothers was collected from the Canadian birth registration records (Dzakpasu & Chalmers). The response rate was 86% and women were generally comfortable answering all the questions addressing Canadian maternity

care system (Dzakpasu& Chalmers). This survey was the first of its kind in Canada and the paper (Dzakpasu& Chalmers) represents the results of this pilot study. This survey did not include women who live on reserve, although it did include Aboriginal mothers (Dzakpasu& Chalmers).

Results of the survey reported that non-evidence-based practices were used, including shaving of pubic hair, use of enemas in labour, continuous electronic fetal monitoring, and requiring women to lie on their backs to give birth (Dzakpasu& Chalmers). Twenty-three percent of women surveyed said they did not know if they had been screened for sexually transmitted infections, 10% did not know if they had a speculum exam, and 7.6% did not know if they had manual stretching in labour (Dzakpasu& Chalmers). On a positive note, approximately one-third of women reported folic acid intake before pregnancy, and 81% reported taking a supplement in the first trimester of their pregnancy (Dzakpasu& Chalmers).

The fact that this is the first survey of its kind in Canada shows the need for more surveillance of Canadian women's maternity experiences. The sample size, 291 mothers, is small considering it is a national survey, and larger sample sizes are needed for future surveys. A response rate of 86% shows that mothers are willing to talk about their experiences, and health care providers in turn can learn how to improve care through their input.

The implementation of NP-facilitated GPVs can generate more statistics to evaluate the satisfaction rate of Canadian women who receive prenatal care. GPVs facilitate discussion amongst Aboriginal women about their experiences with pregnancy and childbirth. Care providers can learn how to improve or adapt their care to the needs of the women they are caring for by listening to the positive and negative stories childbearing women are willing to share.

## Support for Culturally Relevant Prenatal Care

**Importance of Respect in Health Care Interactions.** Browne (1995) undertook a qualitative study that explores the meaning of respect from an Aboriginal perspective. The study describes clinical interactions between Cree-Ojibway people and health care providers in northern Manitoba. The study describes the meaning of respect and lack of respect from a First Nations perspective. Browne outlines the six characteristics of respect that emerge from the study.

The first characteristic of respect is the capacity to treat people as inherently equal and worthy of respect (Browne, 1995). All humans should be treated with equality. The second characteristic of respect is the acceptance of others. Respect means that people are accepted despite differences in beliefs and values and are not judged for these differences. The third characteristic of respect is a willingness to listen to others. Participants felt that care providers show respect by listening patiently without cutting them off or interrupting them before finishing a thought. Participants felt respected when they sensed a care provider was trying to understand them (Browne, 1995).

The fourth characteristic of respect is a genuine attempt to understand each client's unique situation. For example, a female participant wanted to be respected for having a nonconventional view of birth control, as she had ten children. Respect meant that doctors and nurses would try to understand her way of doing things even though her attitude is opposite to the medical way of planning and controlling pregnancies (Browne, 1995). The fifth characteristic of respect is an attempt to provide adequate explanations during clinical interactions. Participants stated that they want things explained to them and not be told what to

do or what medications to take without explanation. When providers offer explanations, they allow the client to exercise their autonomy (Browne, 1995).

The last characteristic of respect is sincerity during client-provider interactions. Aboriginal participants explained that nonverbal messages are very important in clinical interactions. For example, if a nurse walks into a room in a busy or impersonal way, the participant may entirely avoid interactions with her. Care providers need to be aware of the attitudes they convey nonverbally, as they may be interpreted in a negative way by clients (Browne, 1995). NPs can learn from the results of this study and apply these six characteristics of respect into practice to become more culturally competent care providers.

Browne (1995) also outlines what lack of respect means from an Aboriginal perspective. As a general summary, lack of respect was portrayed when the health care provider failed to do something. For example, lack of respect was the failure to consider the client's perspective, failure to provide privacy, and failure to provide adequate explanations. Disrespect is shown when caregivers have a discriminatory attitude. One woman states that a nurse did not want to touch her because she was Indian, as if she was dirty, which hurt and angered the Aboriginal woman. The issue of nonverbal behavior reemerges as disrespect can be in the tone of a voice. A harsh tone or a superior tone can send a message of inequality to a client. By identifying characteristics of disrespect, NPs can incorporate this knowledge into practice and cultural situations.

Browne's (1995) research on an Aboriginal perspective on the meaning of respect brings some direction to NPs and care givers alike. The concept of respect is at the core of nursing, and must be incorporated into practice with any group. This summary of findings is not meant to be

a list of absolutes as one cannot generalize the meaning of respect to all Aboriginal groups. The meaning of respect will differ from group to group. NPs working with Aboriginal women should consider the implications of their actions and behaviors when interacting with clients in light of negative historical events. They should also work to increase their understanding of Aboriginal groups they are working with. NPs should critique their clinical encounters with Aboriginal people in Canada in order that they do not perpetuate an attitude of paternalism and colonialism.

**Participatory Model.** Smith and Davies (2006) highlight that a participatory model is a key to success in Aboriginal care. A participatory model refers to a model of care that involves community members and stakeholders. Stakeholders, including band leaders, family, friends, community health nurses and representatives should be involved to create partnership in a program for Aboriginal women and their families (Smith & Davies, 2006). The CenteringPregnancy model essentially is a participatory model of group prenatal care. Visits are designed to include family and friends, which creates a sense of community and acknowledges the importance of family. GPVs based on the CenteringPregnancy® Model can be tailored to fit the needs of diverse populations including BC Aboriginal women.

**Benefits of Centering Pregnancy Model.** Literature reveals that there are numerous benefits to using the CenteringPregnancy model of group prenatal care. The current clinical approach to medicine is ineffective for servicing the unique health care needs of Aboriginal people (NAHO, 2008). The CenteringPregnancy model is an alternative to the medical illness model of pregnancy, offering innovative, holistic and comprehensive prenatal care (Baldwin, 2006; Carlson & Lowe, 2006). Because CenteringPregnancy is holistic and women-centered, it is a good fit for Aboriginal women.

The CenteringPregnancy model is client-centered and family focused. The model encourages partners to be involved at group sessions. This group model of prenatal care provides more time for clients to interact with their care provider and more time for prenatal education (Baldwin, 2006; Ickovics et al., 2007; Klima, 2009; Klima et al., 2009; Massey et al., 2006; Stemig, 2008; Rising, 1998; Rising & Senterfitt, 2009; Teate et al., 2009; Walker & Worrell, 2008; Walker & Rising, 2004/05). Clients reported high satisfaction rates for reasons such as: they develop a sense of community, develop friendships, relate to other pregnant women, experience personal growth, and gain knowledge from the health care provider and other clients.

Women who attended CenteringPregnancy sessions had higher rates of breastfeeding initiation (Grady & Bloom, 2006; Ickovics et al., 2003; Ickovics et al, 2007; Klima, 2009; Klima et al., 2009). Researchers found a lower incidence of low birth weight and preterm births for clients who attend group sessions (Grady & Bloom, 2006; Ickovics et al., 2003; Rising, 1998). They also found that women who attended group sessions had lower emergency room visits in their third trimester (Massey et al, 2006; Rising, 1998).

The CenteringPregnancy model encourages a multidisciplinary approach. Midwives, nurse practitioners, certified-nurse midwives, and physicians commonly facilitate groups. In addition, some sessions included guest speakers such as a lactation consultant and yoga instructor (Stemig, 2008). Group prenatal care incorporates different experts such as nurse practitioners, physicians, midwives, nurses, dietitians, who share their expertise for the benefit of the group. BC NPs should work in partnership with Aboriginal community members to create a culturally competent team.

**Limitations of CenteringPregnancyModel.** The CenteringPregnancy Model of group prenatal care has several limitations. CenteringPregnancy is a combination of primary health care and prenatal education, which creates an overlap between CenteringPregnancy group content and childbirth education classes (Walker & Worrell, 2008). This may be confusing for clients and health care providers when learning about the program.

Some of the women who attended CenteringPregnancy sessions stated that childcare was an issue (Kennedy, Farrell, Paden, Hill, Jolivet, Willets, & Rising, 2009). The group sessions are not suitable for young children as they are a distraction from the education sessions. If a couple wants to attend, they need to find childcare. Some women stated that they wanted more snacks at the sessions, others wanted more personal time with the healthcare provider, and a few were uncomfortable with the fathers being present for the intimate conversations during group sessions (Kennedy et al., 2009). In another study, three women found two-hour sessions too long and suggested 90 minute sessions instead (Teate, Leap, Rising, & Homer, 2009). Two women were dissatisfied with the appropriateness of consultation with other health care providers. Two women were dissatisfied with the amount of family involvement in their care. One woman was dissatisfied with assistance in future planning. In addition, there was general feedback that clients needed more information about parenting and the newborn stage (Teate et al., 2009).

Healthcare providers using the CenteringPregnancy model voiced challenges with the implementation of the program. Facilitators need to take a course through the Centering Health Institute and learn group facilitation skills. Some health care providers found this skill difficult to learn or worried about their ability to lead a group (Klima, Norr, Vonderheid, & Handler, 2009). Facilitators need to find an assistant who they can work well with. Additional facilitator

tasks include recruitment, scheduling, snack preparation, which caused some difficulty (Klima et al., 2009). Some staff worried about giving up control of their patient relationships. They also felt that groups were unpredictable and out of control (Klima, 2009).

The studies that have been conducted with CenteringPregnancy group prenatal care are limited due to small sample sizes, limited study strength, statistically significant age and ethnic differences, and lack of randomization (Baldwin, 2006; Grady & Bloom, 2004; Ickovics et al., 2007; Rising, 1998; Walker & Rising, 2004/05). The Centering Pregnancy model has a lot of support for its use, but due to its newness, more studies with true randomization are required to demonstrate the true benefits of the program. (See Table 1 for a full review of the Centering Pregnancy literature). In conclusion, NPs using the CenteringPregnancy model can address identified limitations, such as childcare, snacks, and male involvement in sessions, by working with Aboriginal leaders to find creative solutions.

## **Discussion**

The literature collected for this paper supports the argument that NP-facilitated GPVs can provide access to culturally relevant prenatal care for BC Aboriginal women. The following discussion will first explain why BC NPs should implement GPVs for Aboriginal women. The author will then discuss how NP-facilitated GPVs improve access to prenatal care and describe how NP-facilitated GPVs using the CenteringPregnancy Model are culturally relevant for BC Aboriginal women. Finally, recommendations for further research are listed.

### **Support for Nurse Practitioner-facilitated Group Prenatal Visits**

BC NPs are uniquely positioned to provide alternative prenatal care for Aboriginal women because of their holistic approach to health care, flexibility, and ability to provide

primary health care. Generally, NPs have more flexibility and time to provide holistic prenatal care than physicians do. This enables NPs to design care that provides more time than routine prenatal office visits. Additionally, BC NPs differ from midwives because NPs are primary health care providers. They can care for women's health needs that may arise within GPVs, but are unrelated to pregnancy, such as a suspicious mole or lump. NPs also have the skills to see women from GPVs who want primary care for themselves and family beyond their pregnancy. In the next section, the author will elaborate on the benefits of NP-facilitated GPVs.

**Increased Contact Time with Nurse Practitioner.** GPVs provide pregnant Aboriginal women more contact time with a care provider than a traditional prenatal office visit. NPs, alternatively to GPs, are often salary-based, which allows them more time with clients and less pressure to see clients quickly. In Canada, the most common practice for family physicians, midwives, and NPs is routine one-on-one prenatal office visits. The average office visit is brief and the wait time may be long, depending on the practitioner and the clinic. These brief prenatal office visits do not allow the caregiver to answer multiple questions and provide extra teaching time on top of completing a physical examination. They limit time available for addressing emotional and psychological concerns, especially for pregnant women who have complications or high-risk pregnancies. GPVs offer longer appointments, no wait-times, and the added benefits of a rich learning environment.

**Nurse Practitioners as Primary Health Care Providers.** BC NPs are primary health care providers that practice both autonomously and collaboratively to improve health care for BC residents. NPs that have a special interest in pregnancy can diversify their practice to include GPVs for pregnant women. BC NPs are able to use their skills as educators and counselors to provide patient education to groups. NPs facilitating GPV's should include subject matter that

directly addresses risk factors for pregnant Aboriginal women including nutrition and exercise, smoking cessation, substance abuse, weight gain, and infectious disease screening. Bearing in mind the long-term intergenerational effects of colonization, some Aboriginal women engage in high-risk behaviors that affect their pregnancy outcomes. NPs should ask themselves if current health care services have failed to meet the needs or interests of these women.

Some pregnant Aboriginal women have special health needs that an NP is trained to address. For example, smoking and substance abuse is a concern for some pregnant Aboriginal women. BC NPs can provide smoking prevention and cessation support and can include such topics in the curriculum for GPVs. NPs can screen for substance abuse in pregnancy, which should also include asking about alcohol and drug use. If women are more likely to smoke during pregnancy due to limited support and inadequate prenatal care, GPVs can address some of these issues. NPs can help teach women how such risk factors affect the health of their pregnancy and their baby, which empowers pregnant women to make their own decisions based on accurate information.

**Multidisciplinary Care.** NP-facilitated GPVs have all the components of one-on-one medical visits, but also include multidisciplinary care and allow more time for patient education and interaction. NPs can collaborate and lead within a multidisciplinary team of practitioners including midwives and physicians to ensure pregnant women receive comprehensive prenatal care, including hospital care during labour and delivery. Through GPVs, NPs can facilitate thorough and holistic prenatal care throughout the entire pregnancy with the involvement of a multidisciplinary team, which could include community Elders, CHRs, nurses, nutritionists, physicians and midwives.

**Improved Access to Prenatal Care.** Nurse practitioners who facilitate GPVs can improve access to quality prenatal care for BC Aboriginal women. GPV's can take place in any location that has a large meeting room, chairs, and a washroom. GPVs can occur in a variety of locations including schools, community centers, churches, or public health units. GPVs in BC would be a free service and a "one stop shop" where women can receive both medical care and prenatal teaching without the cost of separate prenatal classes. The author suggests that NPs facilitate GPVs in a setting that is close and comfortable for the women attending the group sessions. For example, many reserves in southern BC have community health buildings on site that would easily accommodate GPVs. With the implementation of GPVs, prenatal care does not have to be solely within small medical offices. This is an advantage a NP might have over a physician who may already have a busy office practice and does not have time to travel to more than one sight on a regular basis.

### **Culturally Relevant Prenatal Care and the Centering Pregnancy Model**

NP-facilitated GPVs will provide culturally relevant care for pregnant Aboriginal women. The author believes that culturally relevant prenatal care is holistic and culturally safe. NPs must demonstrate cultural sensitivity when providing care for pregnant Aboriginal women. In addition, NPs must be aware of the diversity between Aboriginal groups and apply this understanding appropriately (Native Women's Association of Canada, 2007).

BC NP's can provide culturally relevant prenatal care through GPVs by utilizing the Centering Pregnancy model. The Centering Pregnancy model for GPVs provides the framework and curriculum to provide prenatal care for Aboriginal women. Centering Pregnancy GPVs are women-centered and encourage participants to take an active role in the health of their

pregnancy. These GPVs allow adequate time for client support and encouragement, with an emphasis on assessment, skill-building, education, and support with the NP as facilitator (Massey et al., 2006). These GPVs involve education and counseling, both of which empower pregnant Aboriginal women to be the primary decision makers in their pregnancy, which supports the concept of cultural safety<sup>1</sup>. Group prenatal care promotes decision-making as a shared responsibility between the pregnant woman, her family, and her care provider. GPVs encourage partners and families to be involved in the pregnancy. The Centering Pregnancy model fosters respect for the normal, healthy, process of pregnancy, which is a commonly accepted Aboriginal belief.

**Holistic Care.** Centering Pregnancy is a holistic approach to prenatal care. Childbearing is a normal physiological process that requires physical, emotional, and social adjustments by the pregnant woman and her family. Holistic prenatal care values, mental, emotional and spiritual health as well as the physical health and safety of a woman and her baby. NPs must understand the emotional aspects of pregnancy and the importance of birth as a family and cultural event. NPs can utilize Aboriginal tools such as the Medicine Wheel to help illustrate to others and remind themselves what holistic health entails.

**Culturally Safe Care.** The NP's main role is to act as a facilitator who partners with a community to create a culturally safe and relevant program for pregnant Aboriginal women. The NP's role is also to protect and respect the normal process of pregnancy. Culturally safe care occurs when the NP realizes he or she is not the cultural "expert" in GPVs. Aboriginal women

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<sup>1</sup>The concept of "cultural safety" in nursing practice first arose in New Zealand among Maori people. Cultural safety is a concept that addresses the issue of power differentials in health care services and gives the power to the recipient of health care who defines successful healthcare. The health care provider does not determine what the recipient should do, but rather understands and respects that other cultures have other ways of seeing and doing things (ANAC, 2009, p. 24; Brauscoupe & Waters, 2009).

who participate in GPVs are the experts in defining what makes an environment culturally safe. It is the NP's role to uncover in practical terms what culturally safety looks like for the cultural group he or she is working with.

BC NPs can contribute to cultural safety by respecting cultural differences. NPs must understand the role and significance of traditional Aboriginal reproductive knowledge and make efforts to incorporate this knowledge into practice (Native Women's Association of Canada, 2007). GPVs can be a safe setting to reintroduce lost traditions. NPs can ask questions and encourage discussion among pregnant Aboriginal women to explore traditions and practices during pregnancy. In turn, NPs must respect the path women choose for their pregnancy.

Culturally safe care acknowledges the importance of family and community in a women's life. Aboriginal women state that disconnection from traditions, communities, and the environment is a cause of much of the illnesses found in the Aboriginal community (Dodgson & Struthers, 2005). GPVs allow for inclusion of community members, such as elders or Aboriginal doulas, who will come and be with pregnant women. Elders can teach their pregnant women about traditional customs, including diet and healing practices, specific to pregnancy and childbirth. NPs should collaborate with community members and develop open communication to learn how to create a safe environment.

## **Recommendations for Further Research**

A thorough review of the literature reveals several areas for further research on the topic of BC Aboriginal women and pregnancy. BC NPs can contribute to the body of advanced practice nursing research and primary health care research in a number of ways. The following is a list of specific ways NPs can provide current research about what is known about the current practices and experiences of prenatal care for BC Aboriginal women.

- Conduct research that is specific to the outcomes of GPVs with pregnant Aboriginal women in British Columbia;
- Focus research on how pregnant Aboriginal women may have better access to culturally appropriate pre and post-natal care through GPVs on reserve by asking Aboriginal women, families, community members and policy makers what they feel would be beneficial;
- Collect data on the role of the NP in the use of GPVs and outcomes in terms of client satisfaction, birth outcomes, and health care accessibility;
- Discuss and define what culturally safe prenatal care looks like according to the specific needs of BC Aboriginal communities as defined by Aboriginal people

## **Conclusion**

### **Recommendations for Nurse Practitioner Practice**

In response to the research question, the author believes that NP-facilitated GPVs can provide culturally relevant and accessible prenatal care for BC Aboriginal women.

Implementing a new group prenatal program requires a large amount of planning and support from members of the multi-disciplinary team involved in these appointments. NPs providing group care should be comfortable leading groups in a facilitative style. It is essential that the NP implementing the program is dedicated to providing collaborative, client-centered, and culturally relevant care.

Nurse practitioners who plan to implement group prenatal visits should consider four keys to planning and implementation. First, NPs working with Aboriginal people should survey the community for existing prenatal programs and for Aboriginal birth rates to understand community needs. Second, NPs should include local health care providers such as physicians and midwives who provide primary obstetric care as stakeholders in GPVs. Third, NPs should establish relationships and collaborative partnerships with Aboriginal community stakeholders, such as the Chief, elders, and community health workers. They are essential in ensuring that GPVs are culturally relevant, informing the NP of healthcare issues needing to be addressed. Finally, the Aboriginal community should decide on an appropriate location to host GPVs with the community members and pregnant participants. The location should be central and comfortable.

The author recommends the Centering Pregnancy Model as a framework for implementing GPVs for Aboriginal women in BC. A history of colonization has led to physical challenges and health care barriers for many pregnant Aboriginal women. Routine prenatal

office visits cannot afford the time it takes to provide holistic care and lacks the benefits of group support and synergy. BC nurse practitioners can bridge this health care gap and strive to make prenatal care more accessible and relevant to pregnant Aboriginal women through GPVs. NPs who venture to facilitate GPVs should be passionate about providing holistic, client and family-centered, care that is meaningful for Aboriginal women. BC nurse practitioners can take the lead in health care by working with Aboriginal communities to provide prenatal care that celebrates Aboriginal culture.

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## Appendix A

### Medicine Wheel



## **Appendix B**

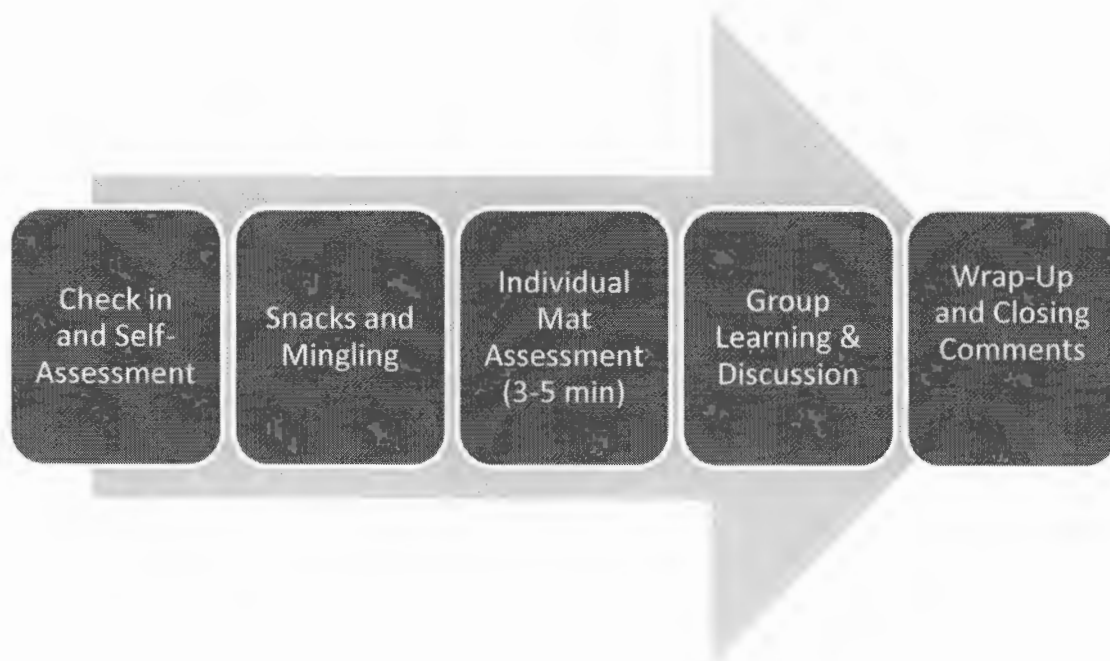
### **CenteringPregnancy® Education Topics**

- Nutrition for pregnancy, lactation, and infant care
- Exercise for physical and psychological well-being
- Relaxation Techniques
- Understanding Pregnancy Problems
- Infant care and feeding
- Postpartum issues including contraception and postpartum depression
- Communication and self-esteem
- Comfort measures in pregnancy
- Dangers of substance abuse and appropriate referrals
- Abuse issues
- Parenting
- Childbirth preparation

(Rising, 1998 & Massey, 2006)

## Appendix C

### Flow of Group Prenatal Visits



## Appendix D

### Suggested Room Set-up



**Table 1: Table of Centering Pregnancy Articles**

Author(s)	Title	Year	Benefits of Centering Pregnancy	Participants	Location/Setting	Limitations of Centering Pregnancy
Baldwin, K	Comparison of Selected Outcomes of Centering Pregnancy Vs Traditional Prenatal Care	2006	An alternative to medical illness model of pregnancy Holistic and comprehensive care More time with care provider More time for education and support	124 Healthy pregnant American women; no medical complication s; ages 18-32; English speaking N/A	USA (3 sites) Prenatal care facilitated by midwives	Comparison to traditional prenatal care did not demonstrate that Centering Pregnancy groups resulted in increased social support, fetal health locus of control, and sense of participation and satisfaction. Study did have its limitations. Nonmentioned
Carlson, N Lowe, N	Centering Pregnancy: A New Approach in Prenatal Care (Literature Review)	2006	Innovative, comprehensive health care model	N/A	N/A	Nonmentioned
Grady, M.A. Bloom, K.C.	Pregnancy outcomes of adolescents enrolled in a Centering Pregnancy program (Prospective randomized controlled trial)	2004	Lower incidence of low birth weight and preterm birth Higher breastfeeding rates High satisfaction rates among young women	Women ages 14-25 Early pregnancy-1 year postpartum	2 USA cities	Limited study strength due to incomplete data on comparison groups & statistically significant age and ethnic differences
Ickovics, J.R. Kershaw, T.S. Westdahl, C Rising, S.S. Klima, C Reynolds, H	Group prenatal care and preterm birth weight: Results from a matched cohort study at public clinics (Randomized controlled trial)	2003	33% reduction in preterm birth -Increased breastfeeding rates & prenatal knowledge -41% reduction in preterm births for African American group	African American, Latina, and white women Ages 14-25	USA	Nonmentioned

Ickovics, J Kershaw, T.S. Westdahl, C Magriples, U Massey, Z Reynolds, H Rising, S	Group Prenatal Care and Perinatal Outcomes: A Randomized Controlled Trial	2007	-Improved rates of breastfeeding initiation -More prenatal care knowledge -Felt more prepared for labour and delivery	Young women (USA) Ages 14-25 Avg age 20 years 80% African American women	Multi-site RCT	Study limited – favorable results of group visits were not uniform Cost neutral -Sample is restricted to young, ethnic minority women of low economic status (high risk group)
Kennedy, H Farrell, T Paden, R Hill, S Jolivet, R Willets, J Rising, S	"I Wasn't Alone"- A Study of Group Prenatal Care in the Military (Narrative Analysis)	2009	High enthusiasm for group care -Delighted to relate to common worries or discomforts -Sense of community & friendship (not alone) -Felt respected & empowered -Enjoyed self-care -Liked continuity of care	Low-risk military women Average age 25 years Most married	USA Military setting: US Air Force base on Eastern seaboard & US Navy hospital in Pacific Northwest	-Limited personal time with provider and privacy -Some fathers uncomfortable with intimate conversations -Women wanted more snacks -Childcare issues (bring kids is hard, but leaving them is hard too)
Klima, C	Centering Pregnancy: The benefits of group prenatal care	2009	Groups can be adapted for groups with similar medical conditions/age/ethnicity Improves perinatal outcomes Increased productivity Multidisciplinary approach Decreased wait time Increased patient satisfaction Increased breastfeeding rates Clients gain high prenatal knowledge	N/A	N/A	Need training by CHI Need to secure space for sessions, and purchase necessary items Childcare is a common challenge and children are not good group members Some staff worry about "giving up" control over their patient relationships Providers worry about their ability to lead a group Groups are unpredictable and providers may feel "out of control"

Klima, C Norr, K Vonderheid, S Handler, A	Introduction of Centering Pregnancy in a Public Health Clinic (Pilot Study & Program Evaluation)	2009	Enhanced relationships with participants and providers (CNMs) No wait time in crowded clinic Group bonding Clients more likely to seek out clinic resources Prenatal care satisfaction higher in CenteringPregnancy group care than individual care Group clients had higher breastfeeding rates	98% African American population – at increased risk for poor pregnancy outcomes Ages 14-38	Public Health Clinic; Midwest USA	Need to identify stakeholders Need to advertise Difficulty with scheduling; Lack of adequate recruitment; Difficulty receiving medical records in a timely manner; Challenging to learn group facilitation skills; Loss of individual time with clients Facilitator needs an assistant Need to budget for refreshments/snacks
Massey, Z Schindler, R Ickovics, J	Centering Pregnancy Group Prenatal Care: Promoting Relationship-Centered Care	2006	Based on philosophy that pregnancy is a process of “wellness” Relationship-centered care Builds trust b/w patients and care providers Promotes professional development Decreased barriers b/w health-care providers and women Improved communication Group sessions in conference room space frees up examination room Fewer emergency visits Longer visits More time for education Guest speakers (Lactation consultant, yoga instructor,	N/A	N/A	Needs continued research and evaluation of program
Stemig, C	Centering Pregnancy: Group Prenatal Care	2008		Midwifery patients (USA)	Run by certified nurse-midwife (USA)	None mentioned

Rising, S	Centering Pregnancy: An Interdisciplinary Model of Empowerment	1998	<p>etc) Group care same cost as traditional care Increased clinic access</p> <p>Learning and supportive environment 98% of women enjoyed the social interaction of group Women participate in self-care activities Leads to enhanced sense of empowerment for pregnant women -High prenatal care use (86%) -Low preterm rates (4.5%) -Fewer ER visits in 3<sup>rd</sup> trimester</p>	111 women (USA) 60% first baby Ages 19-30+	USA	<p>-Study limited by small sample size, lack of randomization to care model, and absence of analysis on group comparability -11% of women would have preferred the men be absent for the risk-assessment part of the sessions -Challenging to facilitate group sessions</p>
Rising, S Senterfitt, C	Repairing Health Care: Building Relationships through Groups	2009	<p>Powerful relationships built b/w women Intense time creates trust and atmosphere of respect Encourages personal growth through self-reflection and goal setting Higher satisfaction rates for patients Culturally sensitive care that recognizes heritage and customs Provider satisfaction Community-building in groups</p>	N/A	N/A	None mentioned
Teate, A Leap, N Rising, S	Women's experiences of group antenatal	2009	More time with health care provider (16 hrs vs 3-4hr one-to-one)	33 women Multicultural group	Centering Pregnancy Pilot Study;	3 women found 2 hours too long and suggested sessions be 1.5 hours;

Homer, C	care in Australia- the Centering Pregnancy Pilot Study		<p>More time for education</p> <p>Relationship-based</p> <p>Social support among participants</p> <p>Friendship &amp; Support</p> <p>Supportive environment</p> <p>Less wait-time for appointments</p> <p>Satisfied with privacy</p> <p>Enhanced sense of well-being</p> <p>Enjoyed men being involved</p> <p>Sessions were fun</p>	<p>Age range: 19-41 years</p> <p>Majority were in a stable relationship</p> <p>Most having their first baby (n=28)</p>	<p>Australia 2006- 2007; Descriptive Study ; Location: Hospital clinics, community health centers</p>	<p>2 women dissatisfied with the appropriate consultation with other health providers;</p> <p>2 women dissatisfied with family involvement in care;</p> <p>1 woman dissatisfied with assistance in future planning</p> <p>Needed more info about parenting &amp; newborn stage</p> <p>Only 20% of women offered Centering Pregnancy choose to participate</p>
Walker, D Rising, S	Revolutionizing Prenatal Care: New Evidence-Based Prenatal Care Delivery Models (Literature Review)	2004/ 2005	<p>Enhanced level of education and support</p> <p>Care revolves around the patient</p> <p>Starts and ends on time</p> <p>Community building opportunity</p>	N/A	N/A	<p>Need future studies to evaluate the difference group prenatal visits makes in healthcare delivery</p>
Walker, D Worrell, R	Promoting Healthy Pregnancies through Perinatal Groups: A Comparison of Centering Pregnancy Group Prenatal Care and Childbirth Ed. Classes (Literature Review)	2008	<p>Prenatal care with enhanced group education component</p> <p>Enhanced knowledge for women</p> <p>Women involved in their own care</p> <p>Patients share experiences and learn from each other</p> <p>Feel more comfortable asking questions</p> <p>Develop camaraderie</p> <p>Potential to decrease infant mortality and morbidity</p>	N/A	N/A	<p>Overlap between Centering Pregnancy group content and childbirth education classes</p>