

Group Prenatal Care: Striving for Improved Infant Outcomes Around the World

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Abstract

Prenatal care has been an esteemed medical practice for decades, but a new model has surfaced and is reinventing the traditional prenatal care methodology. This revolutionary model is group prenatal care demonstrated by the Centering Pregnancy model. The group model for prenatal care combines the best components of the traditional model with some new components which are supported by other familiar models in society, namely, investment supported by a peer group connection model, collaborative venture supported by a model of collaborative effort which contributes to adherence, social gathering supported by the support group model, relationships with boundaries supported by a social support model, and learning in the group supported by the American education model. There is great promise from the Centering Pregnancy group prenatal care model for improved commitment to prenatal care attendance and thus better infant outcomes in the United States and around the world. Striving toward better global outcomes begins with understanding and ends with seizing the opportunity to take the information and make a global change that makes a difference for hundreds of thousands of women each and every year. This is the responsibility of those who believe life is about more than their individual needs.

Group Prenatal Care: Striving for Improved Infant Outcomes Around the World

“The aim of prenatal care is to prevent the complications of pregnancy and to ensure the wellbeing of mother and child” (Dragonas, & Christodoulou, 1998, 127).

Prenatal care has been an important medical practice for over seventy years and is based on routine visits at regular time intervals to a registered physician or midwife. Since its original appearance, it has become apparent to researchers that prenatal care does much to improve the health of newborns and the delivery experience for women. Women who received prenatal care used much less pain medication to deliver, gave birth vaginally more of the time, had less anxiety about childbirth, had fewer premature births, had babies with higher Apgar scores, and had an overall more positive labor and delivery experience (Dragonas & Christodoulou, 1998). Research supports the positive impact prenatal care has for women of all ages on overall birth outcomes.

A new model, the Centering Pregnancy group prenatal care model, shows even greater promise for infant outcomes in the areas such as increased adherence to prenatal care, longer gestation, higher birth weight, and improved mental, physical, and emotional health of the mother (Ickovics, 2007; Reid, 2007). While a substantial amount of research has been done on traditional prenatal care methods, and the findings support the practice, not much research has been done on a new *group* prenatal care model called the Centering Pregnancy group prenatal care model. In the few studies done so far, positive results are displayed, but more specific research needs to be conducted in order for researchers to draw a valid conclusion. Some aspects of prenatal care, such as the ideals, major informational components, goals, and the importance of timing remain, but new methods of psychological and social support are also introduced in the group prenatal

care model (Reid, 2007). This model is strong because it takes a collaborative effort approach. It combines traditional prenatal care components with the best aspects of group support, such as those displayed in support groups, group counseling sessions, peer assessment in education, and social support in difficult emotional times throughout life. Research done in the future to implement the group prenatal care model may be beneficial for women around the world.

Traditional Prenatal Care

Medical doctor C. Leon Wilson (1995) said, “We are about to realize that this field offers brilliant results in preventative medicine and moreover, that the doctor who assumes the care of a pregnant woman is thereby encountering a tremendous responsibility-namely, the life of the mother and of the unborn child” (p., 181). Prenatal care comes in many forms and is employed in different methods, but the goals are the same. The end goal is for the child to be born alive, and with good chances for normal development, as well as for the mother to deliver at the proper time and be restored quickly to her normal activity (Wilson, 1995). Prenatal care strives to develop healthy infants and healthy mothers, ready for the fullest of lives.

A typical prenatal care regimen as recommended by the American College of Obstetricians and Gynecologists (ACOG) is for the mother to make an initial visit during her first trimester and one visit every four weeks after the first visit until she reaches twenty-eight weeks gestational age. Following this, the mother makes a visit every other week from twenty-eight weeks to thirty-six weeks, and finally a visit every week from thirty-six weeks until delivery. If this regimen is followed properly, the expectant mother should participate in thirteen prenatal care visits during pregnancy. The basic components

of prenatal care are patient risk assessment, pregnancy health education, and medical intervention and follow up.

The initial visit focuses on the mother's medical history and assess the overall health and development of the fetus. The gestational age of the fetus is determined and a proposed due date is given. The attending physician guides the mother through a questionnaire, asking her questions pertaining to risky behaviors such as drinking, smoking, or promiscuity, to ensure she will be properly monitored and receive adequate treatment throughout her pregnancy. An initial overview of the pregnancy is done so the physician can determine if the pregnancy is following a normal pattern of progress and development. Support and general education about nutrition, smoking cessation, and drug and alcohol use is provided. In subsequent visits ultrasounds and other medical test are conducted to determine developmental health and gender of the fetus. , (Lu, M. C., & Tache, V., 2003).

The timing for when women begin the prenatal care process is vital to infant health. Doctors recommended for women to begin the prenatal care process at the very first trimester of pregnancy, as soon as they think they are pregnant because the initial screenings are of the utmost importance (Hodnett, Fredericks, & Weston, 2010; Morton, 1937). Adolescents especially need encouragement to seek early prenatal care because they are statistically more likely than older women to begin prenatal care late in their pregnancy or to neglect it altogether, even though they are also at increased risk for a challenging pregnancy and questionable birth outcomes (Cartoof, Klerman, & Zazueta, 1991). Wehby and colleagues (2009) showed final birth weight for the infant might decrease from 1 to 35g for each week that passes before the mother begins prenatal care.

As evidenced in a study done by Evans and Lien during the Pennsylvania Port Authority Transit bus strike in 1992, the absence of prenatal care at the beginning of pregnancy had measurable effects on the health of the baby. Many women were unable to attend early prenatal care visits because of a lack of available transportation; those women lost nearly two visits each (2005). Additionally, Cartoof et al. (1991), showed these findings: mothers who received adequate prenatal care gave birth to infants weighing an average of 80 grams more than those who received care somewhere between adequate and inadequate, and 180 grams more than those who received inadequate prenatal care. Adequate prenatal care is defined as receiving care starting in the first trimester and for at least nine visits. Inadequate prenatal care includes beginning prenatal care after four months of pregnancy and/or receiving less than five prenatal care physician visits (Sable, Stockbauer, Schramm, & Land, 1990). Also, women who received adequate prenatal care carried their babies an average of 39.4 weeks compared to 39.2 weeks for those who received an amount of prenatal care between adequate and inadequate and 38.6 weeks for those who received inadequate prenatal care.

Small differences in gestational age and birth weight make a big difference long term because these are two of the most important predictors of infant and child mortality (Sable, 1990). In another study conducted on inner-city women who received little to no prenatal care, head researcher Sonia Alemagno and her research team found that infants born to these women had significantly lower average birth weights as well as a higher occurrence of low birth weight for gestational age babies. The occurrence of babies born prematurely was higher as well in those who received inadequate prenatal care (Alemango, Melnikow, Rottman, & Zyzanski, 1991). Researchers Donaldson and Billy

(1984) and Kotelchuch (2006) explain that birth weight is the most important predecessor for overall infant health outcomes as well as infant survival, and adequate prenatal care is linked to higher birth weight and overall healthier infants. It is clear from their findings that prenatal care is a practice in which pregnant mothers should committedly engage.

Group Prenatal Care in The United States

A new trend in health care for pregnant women has breached the forefront of medicinal practices: group prenatal care. This new model of care is designed to empower pregnant women by taking a more direct client-centered approach than the traditional prenatal care methods because this method focuses on the physical, emotional, relational, and practical needs of the patient. The Centering Pregnancy model is currently the most well-known group prenatal care model in practice. This approach combines components of prenatal assessment, prenatal education, and overall emotional and psychosocial support (Reid, 2007). The goals of group prenatal care are to empower women to take a vested interest in their prenatal care experience, educate them about pregnancy and childbirth, and provide a deep sense of support and community. According to Dragonas and Christodoulou (1998), “Childbearing is a process whereby the domains of the biological, the social, and the psychological are articulated in the most manifest way. It thus provides a golden opportunity for the unification of the medical and psychosocial approaches. This can only be achieved if pregnancy and birth are redefined” (137). The Centering Pregnancy model seeks to combine the biological process of childbearing with the psychological way women respond to being pregnant, as well as the deep desire for socialization that women have in increased proportions during pregnancy. The infant

birth goals are for preterm birth rates to decrease and for infant birth weights to increase (Dragonas and Christodoulou, 1998).

The Centering Pregnancy prenatal care plan follows a similar progression as that for individual or traditional prenatal care. There is an initial obstetric exam given as soon as the woman is aware of her pregnancy and joins the group. This is will a part of her first meeting and typically takes place around or before twelve weeks gestation (Massey, 2006). Following the initial exam, the patient will participate in ten more prenatal sessions. Different from individual prenatal care, however, after the initial exam, the woman is placed in a group with eight to twelve other pregnant women who are progressing through the same stages of pregnancy at the same time. This affords women the benefits of experiencing the crests and troughs of pregnancy together. The group meets ten times over the twenty-eight weeks following the original formation of the group, for two hours each time. In each session, the women weigh themselves and take their blood pressure, then add the information to their ongoing pregnancy chart as they are trained to do during the first session. Appropriate lab work and ultrasounds are conducted on an individual basis on track with the scheduled times from the traditional prenatal care model. While each patient is meeting with the physician, the group is able to socialize, eat healthy snacks, ask questions, have discussions, and fill out their self-assessment sheet for the week. The self-assessment sheet addresses a different topic each week, which correlates to the physical, mental, and emotional changes that occur in pregnancy in accordance with that specific gestational time. For example, the first week's assessment addresses goals for the prenatal care experience and a healthy diet, as directed by current government recommended nutrition standards. The second week is for the

discussion of any discomforts in pregnancy and the women are encouraged to share their struggles and successes with the group. Topics for the other meeting weeks include relaxation techniques, breastfeeding, parenting issues, comfort in labor, and evaluation of personal achievement.

The essential elements of each session are risk assessment, self-care activities, and the facilitative leadership style of the attending midwife and physician. Special attention is given to the core content concept of each week, honored contribution to the group from each member, sitting in a circle, a stable but not rigid composition, family involvement and support, socialization, and an ongoing evaluation of outcomes. Importantly with the Centering Pregnancy model, women are encouraged to take charge of their health and be a part of evaluating it. It is critical that all the essential elements are implemented during the sessions in order to facilitate the best learning and growth environment for the women involved.

Overall outcomes of the model are positive, especially for teenagers who had a no-show rate of only 19% compared to a no-show rate of 28% with traditional prenatal care appointments (Reid, 2007). Numerous studies show that twice as many teenagers in the Centering Pregnancy group prenatal care study met the requirement for weight gained during pregnancy than those in traditional single or multi provider prenatal care, and twice as many breastfed after birth, a decision that has repercussions on the future health of the woman and the infant in a positive way (Chhatre, Gomez-Lobo, Darnle, & Darolia, 2013; Grady & Bloom, 2004).

Ickovics et al. (2007) had similar results showing that women who participated in the Centering group prenatal care model gave birth to infants of greater gestational age

and larger birth weight when compared to those who received traditional prenatal care. The difference was said to be attributed to the increased rate of prenatal care satisfaction with the group model. Because women enjoyed going through pregnancy together, a higher rate of women returned for all the scheduled prenatal care visits. Also, the positive pressure to live a healthy lifestyle, and to take a vested interest and greater level of participation in personal health and progress monitoring, attributed to greater satisfaction with pregnancy and overall positive infant health outcomes. According to the Qualitative Health Research study (2010) done on women who had already given birth, women enjoy receiving prenatal care in groups (Novick et al.). “When asked whether they would choose [Group Prenatal Care] GPNC or individual care for a subsequent pregnancy, women overwhelmingly said without hesitation that they would choose GPNC” (Novick, 2010, 101).

Investment makes a difference because when women begin to pour their time and energy into their health and development and that of those women around them, the women become connected on a deep level and are likely to continue caring for themselves and others. “Favorable results have been observed in the following variables: maternal knowledge of pregnancy, social support, patient satisfaction, compliance with caregiver’s recommendations, readiness for labor and delivery, incidence of preterm birth, incidence of low birth weight, and neonatal death” (Shakespeare, Waite, & Gast, 2010). Women in the Centering Pregnancy group prenatal care program feel invested in by those around them and those taking care of them, but they also feel personally invested in their own experience, because they are encouraged to chart their own progress

and constantly discuss and evaluate their pregnancy experience and what they are learning (Novick et al., 2010).

Critical Themes of Group Prenatal Care

Six critical themes emerged from the Centering Pregnancy's prenatal care model. The themes include: investment, collaborative venture, a social gathering, relationships with boundaries, learning in the group, and changing self.

Investment

The theme of investment, the devoting time, resources and energy in hopes of a worthwhile result, involves the women being vulnerable in sharing deeply from their life experience with the other women in their group, as well as women feeling invested in and needed by the group leader and other group members (Grady & Bloom, 2004). Women may initially be hesitant to invest in an unfamiliar style of prenatal care. However, research by Novick et al. (2010) showed that once women began to come to the group prenatal care, their sense of investment stemmed from regular attendance to the meetings, spending time with the others in their group, and feeling that their time was valued and respected by all. As the women spent time together and began to feel invested in one another, they began to enjoy their time sitting and talking with each another in the form of "suggested stability, companionship, and mutual investment" (p., 102). In this sense, investment soon became known as "sitting there, taking time out" (p., 102).

Being invested promotes adherence and continued participation. This is an important component for prenatal care success. The concept has been demonstrated through the "Peer Group Connection" program developed by Princeton researchers designed to help students adjust to a new school setting. Students who invested

themselves in this “students mentoring students” program had a 77% graduation rate (from high school) in four years versus a 68% graduation rate for those who did not participate (Blad, 2014). Blad (2014) explains that this program allows for a deeper level of honesty than is typically experienced between students in a classroom, and the breaking down of barriers that leads to this honesty is a powerful experience attributing to the program’s success. As students become vulnerable they also become invested. When a student is willing to open up about their life to another student or group of students, they are showing that they care enough about the group to give a piece of themselves away for the sake of the betterment of everyone involved. This is the same kind of honesty the group prenatal care program facilitates. Thus the power of that experience can also stimulate significant results.

Collaborative Venture

Collaborative venture is a component of the Centering Pregnancy group prenatal care model that came to be known as “everybody talked to everybody” (Novick et al., 2010, 103). Collaborative venture is considered by the creators of the Centering Pregnancy group prenatal care model to be the most essential component of group prenatal care. Group prenatal care is a dynamically interactive process that strays away from the more rigid traditional prenatal care system by advocating group discussion, facilitated leadership, and active participation in the prenatal care process. Women discuss their current state of mind and body, and get feedback and advice from other women in the group. The group leaders encourage and direct the women and offer advice from personal experience to make women feel more comfortable with their pregnancy.

Women are encouraged to actively share and participate in discussion, because when each woman shares, a sense of cohesiveness builds among group members and all of the women feel a deep sense of investment from each other (Novick et al., 2010; Whitson, 1993). As women grow together as a group they begin to collaborate based off what has been shared and they rally together to walk through each stage of pregnancy stronger together than they could apart. Positive peer pressure among the group helps to promote adherence to the program, as each group member feels she is a valuable part of the team collaboration, and a continuation of investment each session amidst group members.

A Social Gathering

Circular meetings filled with hours of talking and laughing exhibit the idea of a social gathering in group prenatal care. Group prenatal care visits are conducted in a relaxed and enjoyable atmosphere that simulates a more comfortable, home-like setting than traditional prenatal care doctor visits. The visits are inviting because of the spacious meeting area, discussion circles, self-responsibility in taking vital signs and development data and statistics, and good food and conversation. These social gatherings reach the deep longing in women to be a part of a group that understands them and supports their needs (Novick et al., 2010). This aspect of the Centering Pregnancy model mimics the support group setting seen in groups like Alcoholics Anonymous. According to Oregon attorney Michael Sweeney (2004), in an A.A. meeting, each individual is given a chance to share his or her burdens and struggles with alcoholism. "A.A. members share their own experience, strength, and hope with each other," he says, for the betterment of the entire group. Statistics show that after being part of the group for the full twelve weeks,

81% of participants were alcohol free for six months verses 26% for those who did not participate (Miller, 2007). A social gathering evokes feelings of belonging and increased invested participation and has positive statistical results.

Relationships with Boundaries

According to a study conducted by Norvick et al. (2010), through the Centering Pregnancy model, the midwife facilitator helped women address the important theme of relationships with boundaries. Although the women in each group shared many intimate stories and moments with each other, they also guarded some information from being shared so they would not burden the others. The women sheltered other information for a period of time until they felt their relationships were strong enough to share deeply personal information. Having one major thing in common with someone, such as pregnancy, is not grounds for sharing every life detail with that person. However it is often enough to start a relationship, and after an appropriate amount of time, and appropriately placed boundaries more details may be shared. The study reported that women tended to place boundaries on sharing information when they felt the topics were sensitive, such as topics of substance abuse or violence, or when they felt the topic invaded their personal privacy. Some women started group prenatal care with strict boundaries that did not allow them to share any personal information at all, while others had no boundaries and shared too much personal information. Through the group prenatal care process, women learned to build appropriate relational and social boundaries with the group members and their families, and in the end they were comfortable sharing adequate amounts of personal information with those who needed to hear it (Norvick et al. 2010).

Sharing life experiences, feelings, personal stories, and emotion with others and receiving back love, encouragement, friendship and a listening ear is an important lesson for women walking through stressful situations or life difficulties to learn. By engaging socially during these times, women learn how to develop healthy relationships with boundaries that protect their emotions, and the emotions of those supporting them, while still giving and sharing adequately so they can receive the assistance they need. The Susan G. Komen non-profit organization for breast cancer research defines the social benefits for support during the breast cancer journey. The corporation's research shows that even though social support cannot actually reduce the symptoms of the disease, social support does reduce anxiety, stress, emotional distress and depression, fatigue and the experience of overall pain throughout the journey. Social support has also shown evidence of helping to improve mood, self-image, ability to cope with stress, sexual function and enjoyment, and feelings of control. Those who have social support have an overall higher sense of well-being than those who suffer alone (2013). Support is necessary for active learning, growth, and recovery. No one is meant to walk through the complications of life alone. Support groups allow for community building and relationship development during difficult times like breast cancer, long hospital stays, emotional distress, pregnancy, or anything else in between.

Learning in the Group

It was noted that the wide range of participant's experiences and backgrounds stimulate learning in a group setting. The group leader was in charge of promoting group engagement and discussion and Norvick et al. (2010) observed that instead of just giving information or answering a question, the group leader gave time for each member to add

input, and confirmed that all the members understood the topic being discussed. Verbal and non-verbal communication were vital to the discussion and the group leader acknowledged both with equal importance. Examples and demonstrations were given to ensure those with different learning styles were also able to understand and engage new information. Women identified the group discussion format of the program as promoting learning in many ways including, “being able to ask questions, hearing other women’s concerns and questions, learning from other’s experiences, and having the opportunity to tell stories” (Norvick et al., 2010, 107). This experience mimics the peer assessment component of the American education system in which “the intent is to help students help each other plan their learning, identify their strengths and weaknesses, target areas for remedial action, and develop metacognitive and other personal and professional skills. Peer feedback is available in greater volume and with greater immediacy than instructor feedback. A peer assessor with less skill at assessment but more time in which to do it can produce an assessment of equal reliability and validity to that of a teacher” (Topping, p. 20, 2009). Topping also discovered that peer assessment increases reflection and generalization to new situations, helping students to more easily adjust to new learning concepts. Peer assessment promotes self-evaluation and self-awareness and helps those who evaluate and those who are being evaluated (2009).

In addition, the Centering Pregnancy model covers a wide range of topics including pregnancy discomfort and relief mechanisms, healthy eating and exercise, hazardous chemicals and substance abuse, labor expectations and pain management, as well as parenting tips and strategies for after the birth. Another key to learning utilized in the group prenatal care program is self-care. Since the women were in charge of taking

their own blood pressure and weight and charting their results, they were more invested and therefore more concerned about their health (Norvick et al., 2010).

June Whitson, a midwife who practiced group prenatal care back in the 1990's said, "My real work as a midwife has been to get out of the way and let women do their work. In such an intimate group setting, boundaries must be maintained and the process turned back to the participants. (You will find your way. It's yours and yours alone. No two women, two births are the same.) The midwife's role in this circumstance is to be a guardian. We bring the circle together and facilitate the linking. Then we slowly back away from the circle of expecting parents and extend our arms to protect and watch over them, as each woman/couple/family finds an individual way to birth" (22).

Changing Self

The final theme that emerged from the Centering Pregnancy group prenatal care model was changing self, or as voiced by the women in the group, "It was not just me, and the world's not over" (Norvick et al., 2010, 108). Being pregnant extracts a different attitude out of many women that was not always part of their life before. Many women in the group prenatal care program entered with an attitude of fear, as well as one of excitement and stress. When women are submerged in a family culture where they are the only one who is pregnant and experiencing new and sometimes frightening emotional and physical changes, it is easy for them to feel alone and unsupported. On top of potential complicated family situations following an unexpected pregnancy, the nine-month journey to birthing day can feel like an all too challenging predicament for many women.

Women reported that group prenatal care helped change those feelings. "Being in the group helped many women to feel both more comfortable and comforted. This is

derived in part from normalization. Learning about pregnancy helped women understand normal physiological and psychological changes, which then helped them feel more relaxed and less scared. Beyond acquiring information and understanding about these changes, being with other women in groups also helped women to feel less unique in their concerns and to feel that they were not crazy” (p., 108). It is important to shift the focus from a personally stressful or fearful life situation that can become all-consuming, to a focus on listening to and helping others who are struggling and suffering. By moving the focus to another’s life, a woman might realize her life situation is not as bad as she originally thought it was and may, therefore, have a more positive outlook on life. No individual is ever alone in suffering and the group prenatal care model offers the physical evidence of this simple truth.

Group Prenatal Care In America and Abroad

Through the Centering Pregnancy group prenatal care model, the critical themes of investment, collaborative venture, a social gathering, relationships with boundaries, learning in the group, and changing self have been developed and tested amidst a community of pregnant women. As women walk through the pregnancy journey in a group, they become more confident, independent, and empowered individuals. Research shows evidence of improved outcomes for the children born to women involved in the Centering Pregnancy group prenatal care. Women who participate tend to spend more time caring for themselves, attend more prenatal care sessions and have an improved outlook on their life and pregnancy experience. Thus, their children tend to be heavier for their gestational ages, more apt to be full term, and have a greater chance for proper health during their first few critical years of life (Ickovicks, 2007; Reid, 2007). With

such promise for improved maternal and infant outcomes, it is vital for each woman around the world to be given the opportunity for risk assessment, health promotion and medical intervention, and follow up visits in accordance to their needs through the Centering Pregnancy group prenatal care model (Lu, M. C., & Tache, V., 2003).

Introducing the Group Prenatal Care Model Around the World

Worldwide, women experience pregnancy and childbirth every day. The benefits of prenatal care are proven by researched and are well documented. Unfortunately, there are still barriers in accessing and receiving prenatal care for women around the world. According to Brighton et al., “These barriers include distance to nearest healthcare facility, cost of healthcare, and quality of healthcare provided” (2012, 224) as well as a myriad of other difficulties.

Potential Benefits of Group Prenatal Care in Africa

The study by Brightton, et.al. was conducted on a group of pregnant women in Sub-Saharan Africa to determine if there were additional factors affecting use of prenatal care besides those given above, because all factors that have a negative correlation with prenatal care will also contribute to poor infant outcomes (Brighton et al., 2012, 224). The results of the study showed a direct correlation to the need for local group prenatal care implementation:

Cultural perceptions and community attitudes were major influences. The present research indicated that women had little autonomy within communities. Important decisions regarding healthcare, which would influence maternal and neonatal outcomes, were made by people other than the [pregnant] woman herself. An approach inclusive of all community members is, therefore, necessary for a

prenatal care program to be successful. The value that a community as a whole places upon a prenatal care program will influence its uptake and success...Community attitudes regarding cultural beliefs and interactions with healthcare providers were identified as barriers to the utilization of healthcare services during pregnancy in Sub-Saharan Africa. These prevent engagement with prenatal care and timely use of medical services. Addressing the barriers will be seminal to the success of any healthcare intervention. (Brighton et al., 2012, 226)

The group prenatal care model is a potential source of intervention because the positive effects involve all the members of the pregnant woman's inner circle. The mission statement for the Centering Pregnancy group prenatal care model is to "provide relationship centered, nurturing and transforming relationships among women, their families, and health care professionals. More specifically, "The model offers effective and efficient care that is sustainable and can enhance the health of women, their families, health care providers, and their community" (Massey, Rising, Ickovics, 2006, 286).

According to Healthy People 2020, the group prenatal care places special emphasis on the woman and the community surrounding them. A woman's health is vital because the health of a nation is determined by the health of the women and children there. The health of a nation's women and children determines the health of the future population and gives insight into future health challenges a nation will face.

Potential Benefits of Group Prenatal Care in Asia

In a study done on Asian women who received prenatal care in Taiwan, Liang examined factors affecting prenatal care utilization. He states, "Pregnancy and its related issues affect women's awareness of events related to pregnancy, and thereafter their

understanding and approach to prenatal care. The lack of knowledge regarding pregnancy might lead to a woman's unawareness of her pregnancy. Furthermore, it may delay prenatal examination. Lack of knowledge among teenagers and low-income families is the major factor that postpones their seeking for prenatal care" (Liang, 2014, 50).

This is a problem that can be fixed. In the Centering Pregnancy group prenatal care model, education or skills building is one of the three major system components (alongside assessment and support). Women receive educational training in many areas including: nutrition, exercise, relaxation techniques, communication and self-esteem, sexuality and childbearing, contraception, understanding pregnancy problems, childbirth preparation, infant care and feeding, postpartum issues, comfort measures in pregnancy, abuse, and parenting (Massey, Rising and Ickovics, 2006). However, through Centering Pregnancy group prenatal care, women learn the skills needed to advocate for their needs in pregnancy as well as the needs of their families and communities. As women build confidence through their prenatal care and birth experience, "this power may be extended as they supervise health care for their children, by asking questions about treatments, practicing healthy behaviors, and creating a safe environment for their families. These behaviors hold potential to influence women's health and the health of their family, now and in the future." (Massey, Rising and Ickovics, 2006, 290).

The benefits of educating women are immense in relation to their own well-being and to the well-being of their families and community. Education helps mothers perform better in labor and delivery, as well as in the home, and gives them greater opportunities in the work force. Education improves health outcomes, increases life expectancy, and promotes social vigor for those who achieve it. Mothers who are educated about their

pregnancy experience tend to take a more vested interest in their health and also tend to be more satisfied with their time spent pregnant overall (Miyamoto, 2013).

Potential Benefits of Group Prenatal Care in Europe

Delvaux, et al. in 2001, conducted a study of barriers and incentives to prenatal care in Europe. In their sample from ten European countries, they found the following information regarding why women did not receive adequate prenatal care: “In Austria, Denmark, Greece, Hungary, Italy, and Spain, the top-ranking reason was the absence of medical problems. However, in Germany, Portugal, and Sweden, the first reason was the ignorance of pregnancy. In Ireland, the top-ranking reason was that they already knew what should be done” (54). The study participants were given the definition of adequate prenatal care as written by the researchers.

Inadequate prenatal care was defined as no prenatal care, less than three visits, or late prenatal care (i.e., with 0, 1, or 2 prenatal care visits or a first prenatal care visit after 15 weeks of pregnancy). Women with adequate prenatal care had at least three visits, including one in the first trimester of pregnancy. A prenatal visit was defined as a visit to a health professional (i.e., physician, midwife, or public health nurse) where some kind of medical act was performed that implied the pregnancy was being taken care of. Visits intended only to confirm pregnancy were not considered prenatal visits. (Delvaux, Buekens, Godin, and Boutsen, 2001, 53).

The study participants in Austria, Denmark, Greece, Hungary, Italy, and Spain, who selected the “absence of medical problems” for why they did not receive adequate prenatal care and the participants in Ireland who already knew what should be done, may

benefit greatly from a group prenatal care program because of the social network they would build and the emotional support they would receive there. The Centering Pregnancy Group Prenatal Care program focuses on the fact that there is a vast array of factors to be taken into account during the prenatal period, and the health of the child or the absence of medical problems is only one part of a complex process. In a time of extreme excitement and preparation, sharing and growing with a group of other women breeds community, support, and confirmation of feelings, goals and development (Massey, Rising and Ickovics, 2006).

There are many lessons taught through the Centering Pregnancy model as, along the process, women learn that their prenatal care experience goes far beyond scales, weights, and measurements, and instead should be focused on potential problems and potential improved outcomes for childbirth. Through this model women learn that the time they spend as pregnant women is time they should spend reflecting on life and the experiences they have had up to this point. They need time to evaluate what kind of mother they will be and what experiences will influence future responses to the stress and strain of child raising. Women need time to dispel doubts about strengths and weakness in parenting, or about their level of preparedness for motherhood and cultivating a healthy relationship with their baby. Time to reflect is necessary for processing meaningful questions and discussions about daily thoughts and actions regarding motherhood. Most of all, women need time to feel loved, supported and treasured, for the road ahead is long and strenuous and friendship makes it easier to bear (Massey, Rising, Ickovics, 2006).

In Germany, Portugal and Sweden the top response in the study was that mothers received inadequate prenatal care due to ignorance of pregnancy (Delvaux, Buekens, Godin, and Boutsen, 2001). The main problems demonstrated are as follows: inadequate preventative care, insufficient pregnancy screenings, and lack of body awareness among pregnant women. Through the Centering Pregnancy group prenatal care model, women are taught to care for their bodies and to prioritize their health and their needs. In each session, women are given a self-assessment evaluation sheet and are allowed time to process how they are succeeding in the category of self-care. Mothers who were ignorant of their pregnancy the first time missed out on the general benefits of prenatal care. However, the group prenatal care model focuses on prevention of self-care related complications and preservation of women's minds, bodies and souls, and if those who missed it took the time to learn the principles of the group care model for self-care, they would not miss acknowledging their pregnancy the second time around (Massey, Rising, Ichovics, 2006).

Potential Benefits of Group Prenatal Care in South America

Jewell (2009) of the University of North Texas reported findings from his study of South American women and prenatal care. He found that demand for prenatal care in South America is most seriously affected by the pregnant woman's age. Following age, the most significant contributors are previous pregnancy experience, level of education, and marital status. Traditional prenatal care often neglects to stress to teens the importance of care. This is unfortunate because women who give birth before they turn twenty are at increased risk for perinatal complications, including birth weight that is low for gestational age (Cartoof, Klerman and Zazueta, 1991).

In the Centering Pregnancy group prenatal care model, women are divided by gestational age only, not by the age of the mother and teenage girls are welcome to join the group. The teenager would meet in the group setting with other pregnant women who are experiencing the same external, mental, and internal body changes at the same time for support. Also, the group care model ensures teenage girls will not walk through pregnancy alone. Even if women do not receive family support during the prenatal care process, the group prenatal care model provides for a group of women surrounding them, supporting them and helping them learn and grow (Massey, Rising, Ichovics, 2006).

Potential Benefits of Group Prenatal care in Australia

In Australia, women surveyed stated the biggest detriment to prenatal care was a significant lack in communication between the prenatal care provider and the pregnant woman (Tsianakas and Liamputtong, 2001). Communication is a key component of the Centering Pregnancy group prenatal care model. “Centering Pregnancy care is quintessentially relationship centered. By taking health care out of the examination room, barriers between health care providers and patients are eliminated” (Massey, Rising, Ichovics, 2006). The group prenatal care program provides adequate patient to care provider interaction and opens the door to true communication. Also, because the women are highly involved in the prenatal care process, they are better educated and able to ask adequate questions of the providers. Thus they have a better understanding of the process and a mutual level of respect with those caring for them.

The model for patient/provider communication is as follows: each of the ten 2-hour sessions has a defined and set format. First the patient meets with the healthcare provider for an individual assessment for thirty minutes in the corner of the meeting

space for the sake of privacy but not seclusion from the group (keeping the line of support open). The time spent with the health care provider allows time for the woman to listen to the baby's heartbeat while the physician checks the baby's growth and asks questions or discusses issues pertinent to the individual patient's needs and concerns (Massey, Rising, Ichovics, 2006). This model is especially pertinent to women who want to build a strong relationship with their health care provider throughout the prenatal care process.

Making a Worldwide Difference with Group Prenatal Care

Factors that encompass worldwide determinants to women receiving adequate prenatal care include cultural perceptions and community attitudes, as well as lack of education and knowledge. Other factors, such as the absence of medical problems during pregnancy, already knowing what should be done, a significant lack in communication between the prenatal care provider and the pregnant woman, the pregnant woman's age, or complete ignorance of pregnancy, also influence care. In each of these situational barriers, however, the Centering Pregnancy group prenatal care model provides sufficient resolution and support. Though it can be difficult to see past the cultural norm of traditional prenatal care, or the absence of prenatal care altogether, the group prenatal care model has an abundance of quality resources for women around the globe.

The Commission

There is a role for Christian, American women to play to improve health and prenatal care practices for other women around the globe. As Christian women, we have an especially high calling. Our highest calling is to love the Lord our God with all our heart, soul, mind and strength (Luke 10:27). It is a biblical command for women to

submit to and respect their husbands (Ephesians 5:22-23). It is a biblical command to lead a worthy life; to be humble and gentle; to be patient with each other, to make allowance for each other's faults because of love; to make every effort to stay united in the Spirit, bound together with peace (Ephesians 4:1-3). It is a biblical command to be kind and compassionate to one another (Ephesians 4:32). And in an extraordinary moment in scripture the Lord gives the biblical command to live lives of pure and genuine religion, which is outlined as caring for orphans and widows in their distress and refusing to let the world corrupt you (James 1:27). A brain-scan research study from Mexico in 2011 showed that all the women studied had brain activity in the thalamus (which is part of the brain responsible for memory and emotion) in response to situations that elicit compassion while the men studied did not (Jacobs, 2011). Though this study is not exclusive or definitive, it does speak to the natural ability of women to relate to the suffering of others and identify with their hurts and needs. Women around the world are suffering from poor and inadequate prenatal care practices. This disparity is changing the lives of thousands of women and children each year. The time has come take action and seek to make a change that makes a difference for women around the world.

The Challenge

Women's need for prenatal care around the world will not change or be conquered overnight. The ultimate goal is for long-term improvement of women's health and pregnancy outcomes. The United Nations has created eight Millennium Development Goals to be implemented and accomplished worldwide by 2015 as part of "building a better world." The fourth goal of the initiative is to reduce child mortality. This reduction can be accomplished by keeping women nourished so they bear full term, normal birth

weight babies that have better health outcomes and are less likely to die as infants or have severe childhood illnesses. There is a need for educated and compassionate individuals to stand up and impact the areas of poverty, poor nutrition, poor prenatal care practices, and maternal and infant mortality. Realistically, there is not much difference between women in the United States, sub-Saharan Africa, Europe, Asia, or Australia. All women have needs vital to their personal, reproductive, and prenatal health as well as the health of the families for whom we care. Ultimately, Christian women and educated individuals have the calling to use these goals and this common ground as a platform to touch physical needs in the women around the world to open the door to touch a spiritual need as well. Heed the calling to love. Heed the calling to take action. Heed the calling to make a difference. Heed the calling to be an individual of compassion. So go educate and train. Go to the nations and change the world.

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