Promoting Healthy Pregnancies Through Perinatal Groups: A Comparison of CenteringPregnancy® Group Prenatal Care and Childbirth Education Classes

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ABSTRACT

CenteringPregnancy® group prenatal care is growing in popularity and has commonalities with childbirth education classes. In order for leaders of childbirth education classes to best serve their clients' needs, it is important to be aware of new, emerging models of prenatal care such as CenteringPregnancy. This article provides an overview of CenteringPregnancy and similarities and differences between CenteringPregnancy and childbirth education classes. Providers of prenatal education, whether it is within CenteringPregnancy group prenatal care or in childbirth education classes, have a common important aim: promoting positive perinatal outcomes.

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Educating pregnant women in groups is not new. Childbirth education classes have assisted in preparing women for their labor and birth experiences for more than 50 years. Initially aimed at promoting natural childbirth, childbirth education has evolved and added information on topics such as healthy lifestyle habits, anxiety reduction, and postpartum care (Enkin et al., 2000). With the development of CenteringPregnancy® group prenatal care, pregnant women are now able to receive prenatal care in groups as well as attend childbirth education classes.

Group health-care appointments do not replace a medical office visit; they *are* one. This new trend in health care takes the traditional one-to-one office visit to a different level, offering patients the opportunity to participate in health-care appointments focused on a common theme and shared with other patients (Bronson, 2005). Group appointments are approximately 90 minutes, rather than the usual 10 or 15 minutes.

Group care is not just for pregnant women but may focus on other health-care areas such as

Lamaze International has created an independent study based on this article. Please visit the Lamaze Web site (www.lamaze.org) for detailed instructions regarding completion and submission of this independent study for Lamaze contact hours.

well-child care or chronic illness management (e.g., diabetes and cardiac disease). Depending on the type of group-care visit, the health-care provider may perform an exam in a nearby room or in an area blocked off for privacy during the appointment. When the participants' exams are completed, the provider spends time discussing patient concerns in the group setting, where others can learn. Patients do not just hear what the provider says, they learn from each other, too (Bronson, 2005).

Because many providers feel pressured to see a growing number of patients and because patients consequently experience shorter appointments with long wait times, there is mounting frustration and dissatisfaction with the amount of time spent in providing or receiving care. In the 90-minute group care visit, everyone is there for a common reason, resulting in a more efficient use of time. A topic can be discussed in more depth because more time is available, leading to increased patient benefits as well as increased patient and provider satisfaction (Bronson, 2005).

Today, prenatal care providers have more care options available to them and are able to individualize prenatal care more than ever before, including offering fewer prenatal visits for healthy women (Walker & Koniak-Griffin, 1997) or group prenatal appointments. CenteringPregnancy group prenatal care—conceived by Sharon Rising (1998), MS, CNM—is currently offered in over 200 sites in the United States and Canada. Group prenatal care contains the same basic components as individual care: early and continuing health assessment, health promotion, and medical and psychosocial follow-up procedures. However, additional education and support are gained from interactions with group facilitators, guest speakers, and pregnant women who are members of the group.

CenteringPregnancy has some similarities to, but does not take the place of, childbirth education. CenteringPregnancy and childbirth education cover similar educational topics, but childbirth education classes continue as an important component of pregnancy care and are particularly important for first-time parents.

This article provides an overview of CenteringPregnancy group prenatal care and highlights similarities and differences between CenteringPregnancy and childbirth education classes.

GROUP VISITS

Originally conceived in 1974 as a model for well-child care, group visits are mentioned as one of

the 10 features of the Future of Family Medicine Project's New Model of Family Medicine and have recently been popularized in practice management literature (Jaber, Braksmajer, & Trilling, 2006). Group visits have also received attention from policy makers and payors. The Federal Balanced Budget Act of 1997 resulted in changes in reimbursement by the Centers for Medicaid and Medicare Services that supported group delivery of diabetes education (Mensing & Norris, 2003). Today, insurance companies cover group appointments for both health promotion and illness management.

The group-visit model has emerged as a possible solution to problems posed by the limitations of current care structures relating to management of chronic illnesses such as diabetes and cardiac disease. Because of the major lifestyle changes cardiac and diabetic patients are challenged to make, these clients benefit from group care. In a group setting, they have the opportunity to share experiences and learn from health-care providers as well as other group members (Masley, Sokoloff, & Hawes, 2000; Rizzotto, 2005).

In terms of pregnancy care, the Centering Pregnancy and Parenting Association, Inc., is leading the way with CenteringPregnancy, a group prenatal care model to deliver prenatal care and health promotion content. Because pregnancy is a normal, physiologic process and not a disease, prenatal care focuses on maintaining a healthy state and promoting the most optimal outcome for mother and baby. The ideal CenteringPregnancy group is 8–12 women at approximately the same gestational age with their significant others (Rising, 1998), led by a certified nurse-midwife or certified midwife, a nurse practitioner, a physician's assistant, or a medical doctor skilled in the group process. It is important to have an additional person—a nurse or an aide—to act as a coleader to facilitate the flow of the group and help with any necessary follow-up procedures (Rising, 1998).

The CenteringPregnancy program is ten 90-minute sessions that begin when pregnant women are between 12 and 16 weeks gestation and conclude with an early-postpartum meeting. Each session is divided into two or more formal discussion and education periods. The prenatal health assessment begins during the first 15–20 minutes and finishes during the midsession break for those who were not assessed before the session. Healthy refreshments are available during the break, which gives the group leader an opportunity to teach members

about healthful eating. The health assessment is conducted at the edge of the group on a mat or an exam table or in a reclining chair. The education discussions comprise the majority of the group time. Handouts, worksheets, and videos facilitate the discussion and supplement the information exchange (Rising, 1998).

Expectant mothers play a significant role in their own care when attending CenteringPregnancy groups. Within the group, women participate actively in the health assessments by weighing themselves, checking their urine for glucose and ketones, taking their blood pressure, determining their baby's age by using the gestational wheel, and making appropriate chart entries. Because they have access to their medical records, women become familiar with the entries and ask questions about recorded findings (Rising, 1998).

The pregnant woman is not able to alter some of the risk factors that are associated with adverse perinatal outcomes (e.g., race/ethnicity and past obstetric history). However, it is within her ability to adjust her activities to decrease the possibility of poor birth outcomes—such as low birth weight, prematurity, or congenital anomalies—as well as the likelihood of developing gestational diabetes (U.S. Department of Health and Human Services [USDHHS], 2000). For example, she can abstain from using tobacco, alcohol, and illegal drugs; use over-the-counter drugs judiciously; obtain prenatal care; eat well and gain the right amount of weight; get adequate exercise; and learn about pregnancy and childhood (Brown, 1988). All of these beneficial self-management practices can be positively influenced by prenatal education and group dynamics.

Not only do group prenatal visits contain the same elements as individual appointments, but women participating in CenteringPregnancy groups report feeling empowered to take an active role in their health care (Rising, 1998). In addition to receiving physical care, pregnant group members gain confidence, feel more comfortable asking questions, learn that others are in similar situations, and develop camaraderie with fellow group members.

EVIDENCE BASE FOR PRENATAL GROUP CARE AND CHILDBIRTH EDUCATION

CenteringPregnancy Group Prenatal Care

A growing body of research assesses the effects of CenteringPregnancy on a variety of health and psychosocial outcomes (Baldwin, 2006; Grady & Bloom, 2004; Ickovics et al., 2003, 2007; Rising,

1998). Rising (1998) evaluated group versus traditional care at an East Coast hospital clinic among ethnically diverse, primarily Medicaid-eligible women ranging in age from adolescence to over 30 years ($N = 111$). Ninety-six percent reported that they preferred receiving prenatal care in groups. Group-visit attendance was at least as good as traditional care, with the teen groups averaging 92% attendance (Rising, 1998). Women in the pilot study were significantly less likely to visit the emergency room in the third trimester ($p = .001$), and no significant differences were found in perinatal outcomes between the two groups (Rising, 1998).

In a prospective matched cohort study, Ickovics et al. (2003) examined the impact of CenteringPregnancy versus individual prenatal care on birth weight of infants and gestational age at birth. Pregnant participants ($N = 458$) were of low socioeconomic status and predominantly Black or Hispanic. Birth weight was higher for infants of women receiving group versus individual prenatal care ($p < .01$) due to increased gestational age at birth. Additionally, if the infant was born preterm to a woman in group prenatal care, the newborn was also heavier (Ickovics et al., 2003).

In a 5-year, randomized controlled trial with the same population ($N = 1,047$), funded by the National Institutes of Health, Ickovics et al. (2007) reported that women attending group prenatal care sessions were significantly less likely to have (a) preterm births and (b) suboptimal prenatal care, and they were more likely to (a) have better prenatal knowledge, (b) be more ready for labor and birth, (c) have increased satisfaction with their care, and (d) have higher breastfeeding initiation rates.

Grady and Bloom (2004) compared birth outcomes of adolescents ($N = 124$) receiving group versus individual care. The researchers' results indicated that adolescents in the CenteringPregnancy groups had babies who were significantly less likely to be preterm or have low birth weight.

Baldwin (2006) assessed the effect of group versus traditional care ($N = 98$) and found that group attendees reported significantly higher levels of pregnancy knowledge. Findings demonstrated that pregnant women who attended CenteringPregnancy sessions made fewer emergency room visits, especially in the third trimester (Baldwin, 2006).

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Childbirth Education

Although increasing the proportion of women who attend a formal series of childbirth education classes is a developmental objective in *Healthy People 2010* (USDHHS, 2000), little research has been devoted to the utilization and outcomes of childbirth education classes. Four recent reports were identified that included some utilization data (Declercq, Sakala, Corry, & Applebaum, 2006; Declercq, Sakala, Corry, Applebaum, & Risher, 2002; Lu et al., 2003; Slusser & Lange, 2002).

Slusser and Lange (2002) reported that among a nationally representative sample of women with young children, 71% had attended childbirth education classes, although no further details were given regarding the rate of utilization and personal or demographic characteristics.

In their study, Lu et al. (2003) found significant sociodemographic disparities in childbirth education class attendance ($N = 1,540$). Two thirds (66%) of the study participants reported having attended a childbirth class, with White women twice as likely as African American women to have ever attended (odds ratio of 2.15; confidence interval of 1.39, 3.31). Half or fewer than half of the women who were Hispanic or African American, poor, or never married, or who had less than a high school education were significantly less likely to have ever attended a childbirth class. Additionally, Lu et al. (2003) found that the likelihood of a child being breastfed increased by 75% (odds ratio of 1.75; confidence level of 1.18, 2.60) among women who reported that they had attended a childbirth education class.

Among participants in the 2002 *Listening to Mothers* survey ($n = 1,600$), 70% of first-time mothers stated that they had taken childbirth education classes and only 19% of mothers who had given birth before attended classes (Declercq et al., 2002). Mothers who had given birth before relied primarily on their own experience as an information source on labor-pain relief, while first-time mothers relied on a mix of sources, most frequently childbirth classes, their prenatal caregiver, and friends and family (Declercq et al., 2002).

The *Listening to Mothers II* survey showed a decline in the number of women who took childbirth education classes (Declercq et al., 2006). Of the 903

mothers surveyed, most stated that they sought information about pregnancy and birth through a variety of sources. Only one fourth (25%) of the women reported taking childbirth education classes, with the majority (56%) of new mothers taking classes, while only 1 in 11 (9%) experienced mothers took classes. Other sources of information for first-time mothers were books (33%), friends and relatives (19%), their provider (18%), and the Internet (16%). Experienced mothers continued to rely most often on their past experience (48%), followed by their doctor or midwife (18%), the Internet (13%), and books (12%). Fully two thirds (68%) had watched one or more of eight television shows specially created to depict childbirth, with more than half of these viewers regularly watching at least one of these shows. Disappointingly, but perhaps a sign of our current technological times, far more mothers were exposed to childbirth through television shows than through childbirth education classes (Declercq et al., 2006).

A Cochrane Database Review (Gagnon, 2000) examined the literature on individual or group antenatal education for childbirth/parenthood. The review included results from six randomized controlled trials ($N = 1,443$) of structured educational programs provided during pregnancy by an educator that included information related to pregnancy, birth, or parenthood. Educational interventions directed exclusively toward either increasing breastfeeding success or reducing smoking were excluded, because reviews on these topics are found in other Cochrane Library reviews. The main conclusions were that individualized prenatal education directed toward avoidance of a cesarean birth does not increase the rate of vaginal birth after cesarean section, and that the effects of antenatal education for childbirth and/or parenthood remain unclear (Gagnon, 2000). However, as the author acknowledges, a great deal of variation exists in the prenatal education program literature, ranging from individual to group offerings, which must be taken into consideration.

Providers continue to strongly recommend childbirth education classes to expectant parents (particularly first-timers), and at least one study reported a positive outcome in significantly higher breastfeeding rates (Lu et al., 2003). However, strategies for reaching a wider, more diverse group of pregnant women and families, as well as more research on the effects of childbirth education on perinatal outcomes, are needed. Satisfaction levels with Cen-

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CenteringPregnancy group prenatal care have also been high. Although recent investigations on CenteringPregnancy and childbirth education classes are promising, further scientifically rigorous research is clearly indicated to determine effectiveness.

COMPARISONS BETWEEN CENTERINGPREGNANCY AND CHILDBIRTH EDUCATION CLASSES

Childbirth education classes and CenteringPregnancy group prenatal care are separate but complementary prenatal care services. Their similar philosophies are aimed at promoting health and facilitating women's trust in their own abilities. Lamaze International's philosophy affirms the normalcy of birth, acknowledges women's inherent ability to birth their babies, explores all the ways that women find strength and comfort during labor and birth, and empowers women to gain confidence in their bodies, to trust their inner wisdom, and to make informed decisions about pregnancy, birth, breastfeeding, and parenting (Lamaze International, 2007). A major objective is to enhance the woman's sense of confidence as she approaches childbirth (Enkin et al., 2000).

Modern childbirth education classes have expanded their horizons beyond teaching only about labor and birth (Lamaze International, 2007). Most classes today have additional goals, including promoting good health habits, stress management, anxiety reduction, enhancement of family relationships, feelings of empowerment, enhanced self-esteem and satisfaction, successful infant feeding, smooth postpartum adjustment, and advice on family planning. These topics and others are also covered during prenatal care and are expanded upon even further in CenteringPregnancy group prenatal care. See the Table for a list of similarities and differences between CenteringPregnancy and childbirth education classes.

Group interaction is key to the effectiveness of both childbirth education classes and CenteringPregnancy group prenatal care. Miles and Stubblefield (1982) categorized different types of groups as leader-centered, content-centered, and group-member-centered, depending on the group's purpose, leadership role, content, and type of group process. Prepared childbirth classes in small groups of 5–12 couples are good examples of content-centered groups (Edwards & Nichols, 2000) and are characterized by a designated leader who is usually the content expert. Larger group childbirth classes

may require more control and direction and be leader-centered groups (Edwards & Nichols, 2000).

In CenteringPregnancy, the group process style contains components of both a content-centered group and a group-member-centered group. The format—facilitated group discussion—encourages a member-led discussion of a broad scope of topics, with concerns raised by the women themselves and responses and support often provided by the group members. Among the many factors that enable members to change as a result of facilitated group interaction are the instillation of hope, confirmation that their problems are not unique, receiving and offering of support and advice, and interpersonal learning (Novick, 2004). Within the CenteringPregnancy group sessions, the facilitator or someone from within the group introduces a topic. Women learn as much or more from other women in the group, which contributes directly to increasing each woman's sense of empowerment (Rising, 1998). The first women to give birth often bring their newborns to the final group meetings, helping to alleviate anxiety felt by the remaining expectant mothers as they share their experiences (Montefiore Medical Center, 2007).

There are several differences between childbirth education classes and CenteringPregnancy. First, CenteringPregnancy is prenatal care, with an enhanced group education component, and it includes the physical components of care as well as educational content (Rising, 1998). The primary focus of childbirth education classes, even with the incorporation of a broader range of content, remains on the labor and birth experience. Another difference is that most childbirth education class series begin in the third trimester and continue through the postpartum period. With CenteringPregnancy, care begins with the first prenatal visit and continues through the postpartum course.

An education concept called “the teachable moment” refers to the point when a learner is ready to learn, willing to change, and able to act. In the pregnancy experience, there are many teachable moments. Those who care for and educate pregnant women best serve them by working in concert to reinforce shared educational content as well as healthy behaviors. Childbirth education classes are an asset to those who choose CenteringPregnancy. CenteringPregnancy facilitators promote childbirth education classes as beneficial (Rising, 2007), and childbirth educators, when their learners are attending CenteringPregnancy

For more information about CenteringPregnancy and its programs, log on to www.centeringpregnancy.org or call 203-271-3632.

TABLE
A Comparison of CenteringPregnancy® and Childbirth Education Classes

	CenteringPregnancy	Childbirth Education
Type of group	Content-centered group and group-member-centered group	Content-centered group or leader-centered group
Facilitator	CNM, NP, PA, or MDs who have attended a CenteringPregnancy instructional workshop	Often registered nurses, but could be led by others; certification is available in some types of childbirth education
Timing	An individual first visit in the first or early second trimester (entry into care), followed by 10 group prenatal visits throughout pregnancy and one postpartum reunion visit	Usually last 6 weeks, beginning in the third trimester of pregnancy (after 27 weeks). Early classes may be available, depending on the program.
Attendees	Approximately 8–10 pregnant women with supportive others; a mix of new and experienced mothers	Approximately 6–10 couples (maximum of 12); most often but not limited to first-time mothers
Content	Source of content both external and internal to the group; groups discuss common needs and interests with some content experts, readings, and media	Source of content external to the group; content expert, readings, or media
Payment source	Billed as prenatal care; therefore, covered by insurance, Medicaid, and self-pay. ICD-9 codes are V22.0-23.9	Primarily self-pay, but some insurances cover the cost. The typical cost of a 6-week childbirth education series is \$135.
Physical care	All “usual” prenatal care health assessments performed	Not included
Educational content	Early pregnancy concerns, including adjustment to pregnancy and fetal development	May be included, depending on the type of program.
	Nutrition for pregnancy, lactation, and early infant care	Healthy lifestyles for pregnancy and postpartum period
	Exercise for physical and psychological well-being	Included
	Dangers of substance abuse	Not included
	Preparation for childbirth, including relaxation, pharmacological, and nonpharmacological pain-relief measures and breathing methods	Normal labor, birth, and early postpartum
		Positioning to facilitate the normal progress of labor and birth
		Massage techniques to ease the pain of labor and to enhance relaxation
		Comfort measures, such as hydrotherapy and the use of heat, cold, and pressure
		Relaxation skills to use during labor and after pregnancy to relieve stress
		Labor-support advice for the partner and the professional (doula)
		Communication skills between the pregnant woman and her partner and with members of the health-care team
		Problems that could occur during labor and birth
		Guidance for the pregnant woman to make informed decisions about anesthesia and medical procedures
	Infant feeding, with emphasis on breastfeeding	Breastfeeding and the early postpartum period
	Baby care, including items needed, and early coping techniques	Included
	Parenting techniques and self-esteem building	May be included, depending on program offered
	Postpartum issues, including contraceptive methods and postpartum depression	Included
	Personal and relationship issues, physical or sexual abuse, sexuality, and communication	May be included, depending on program offered.

group prenatal care, can reinforce this beneficial model of care.

CONCLUSION

The time for group prenatal care has arrived and joins childbirth education classes as an efficient and effective means of providing education to pregnant women and their families. Because of the positive health outcomes attributed to group care, group visits are beginning to have a significant impact on the way health care is delivered in the United States as well as in other countries. One of the greatest benefits is that patients make healthier lifestyle choices and, thus, improve perinatal outcomes.

Prenatal care is evolving, as is childbirth education, to meet the needs of today's families, and neither is "one size fits all" (Walker & Rising, 2004–2005). Designing prenatal care that is relevant to vulnerable women in urban communities takes creativity, thoughtfulness, and sensitivity (Milligan et al., 2002). Whether one chooses CenteringPregnancy or childbirth classes, these avenues for education should include a discussion of personal belief systems and philosophies of childbirth; ways of keeping healthy through proper nutrition and exercise; anatomy and physiology of pregnancy; labor and birth; nonpharmacological methods of coping with the natural pain of labor; interventions and choices in childbirth (including the use of epidurals and other medications); unexpected outcomes; choices for the newborn; and breastfeeding and postpartum issues (Hedley, n.d.).

There is a considerable overlap in content between CenteringPregnancy and childbirth education classes, which may render some aspects of childbirth education redundant. A collaborative approach between the two services makes the best use of time and resources. For example, a childbirth educator may wish to become involved in the CenteringPregnancy groups and act as cofacilitator. Alternatively, a childbirth educator might become familiar with the CenteringPregnancy content and provide ancillary classes to CenteringPregnancy participants on aspects of pregnancy, labor, and birth that need further expansion, offering labor rehearsals or guided relaxation sessions or early parenting classes to CenteringPregnancy "graduates." The complementary roles of childbirth education and CenteringPregnancy not only will enhance a woman's knowledge but also will have the potential to help decrease infant mortality and morbidity.

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REFERENCES

- Baldwin, K. A. (2006). Comparison of selected outcomes of CenteringPregnancy versus traditional prenatal care. *Journal of Midwifery & Women's Health*, 51(4), 266–272.
- Bronson, D. (2005). *The Cleveland Clinic Health Information Center. Sharing knowledge, sharing support with shared medical appointments*. Retrieved November 9, 2006, from <http://www.clevelandclinic.org/health/health-info/docs/3700/3793.asp?index=12202>
- Brown, S. S. (1988). Preventing low birthweight. In H. M. Wallace, G. M. Ryan, & A. C. Oglesby (Eds.), *Maternal and child health practices* (3rd ed., pp. 307–324). Oakland, CA: Third Party.
- Declercq, E., Sakala, C., Corry, M., & Applebaum, S. (2006). *Listening to mothers II: Report of the second national U.S. survey of women's childbearing experiences*. New York: Childbirth Connection.
- Declercq, E., Sakala, C., Corry, M., Applebaum, S., & Risher, P. (2002). *Listening to mothers: Report of the first national U.S. survey of women's childbearing experiences*. New York: Maternity Center Association (now Childbirth Connection).
- Edwards, M. G., & Nichols, F. H. (2000). Group process. In F. Nichols & S. S. Humenick (Eds.), *Childbirth education: Practice, research and theory* (2nd ed., pp. 555–574). Philadelphia: W.B. Saunders.
- Enkin, M., Keirse, M., Neilson, J., Crowther, C., Duley, L., Hodnett, E., et al. (2000). *A guide to effective care in pregnancy and childbirth* (3rd ed.). Oxford, UK: Oxford University Press.
- Gagnon, A. J. (2000). Individual or group antenatal education for childbirth/parenthood. *Cochrane Database of Systematic Reviews*, 4, CD002869.
- Grady, M. A., & Bloom, K. (2004). Pregnancy outcomes of adolescents enrolled in a CenteringPregnancy program. *Journal of Midwifery & Women's Health*, 49(5), 412–420.
- Hedley, V. (n.d.). *Childbirth education*. Retrieved April 18, 2007, from <http://www.expectantmothersguide.com/library/newjersey/education.htm>
- Ickovics, J. R., Kershaw, T. S., Westdahl, C., Magriples, U., Massey, Z., Reynolds, H., et al. (2007). Group prenatal care and perinatal outcomes: A randomized controlled trial. *Obstetrics & Gynecology*, 110(2), 330–339.
- Ickovics, J. R., Kershaw, T. S., Westdahl, C., Rising, S. S., Klima, C., Reynolds, H., et al. (2003). Group prenatal care and preterm birth weight: Results from a matched cohort study at public clinics. *Obstetrics & Gynecology*, 102(5, Pt. 1), 1051–1057.
- Jaber, R., Braksmajer, A., & Trilling, J. (2006). Group visits: A qualitative review of current research. *The Journal of the American Board of Family Medicine*, 19, 276–290.

- Lamaze International. (2007). *History of Lamaze*. Retrieved April 13, 2007, from <http://www.lamaze.org/AboutLamaze/History/tabid/104/Default.aspx>
- Lu, M. C., Prentice, J., Yu, S. M., Inkelas, M., Lange, L. O., & Halfon, N. (2003). Childbirth education classes: Sociodemographic disparities in attendance and the association of attendance with breastfeeding initiation. *Maternal and Child Health Journal*, 7(2), 87–93.
- Masley, S., Sokoloff, J., & Hawes, C. (2000). Planning group visits for high-risk patients. *American Academy of Family Physicians*, 7(6), 33–38.
- Mensing, C., & Norris, S. (2003). Group education in diabetes: Effectiveness and implementation. *Diabetes Spectrum*, 16, 96–103.
- Miles, L., & Stubblefield, H. W. (1982). Learning groups in training and education. *Small Group Behavior*, 13, 311.
- Milligan, R., Wingrove, B., Richards, L., Rodan, M., Monroe-Lord, L., Jackson, V., et al. (2002). *Perceptions about prenatal care: Views of urban vulnerable groups*. Retrieved March 22, 2007, from <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=137610>
- Montefiore Medical Center. (2007). *Group prenatal care*. Retrieved April 12, 2007, from <http://montefiore.org/services/coe/womenshealth/prenatal/>
- Novick, G. (2004). CenteringPregnancy and the current state of prenatal care. *Journal of Midwifery and Women's Health*, 49(5), 405–411.
- Rising, S. S. (1998). Centering pregnancy. An interdisciplinary model of empowerment. *Journal of Nurse-Midwifery*, 43(1), 46–54.
- Rising, S. S. (2007). *CenteringPregnancy®*. Retrieved March 10, 2007, from www.centeringpregnancy.org
- Rizzotto, J. (2005). Meal planning in groups. *Diabetes Spectrum*, 18(3), 132.
- Slusser, W. M., & Lange, L. (2002). Breastfeeding in the United States today: Are families prepared? In N. Halfon, K. T. McLearn, & M. A. Schuster (Eds.), *Childrearing in America: The condition of families with young children* (p. 191). New York: Cambridge University Press.
- U.S. Department of Health and Human Services [USDHHS]. (2000). *Healthy people 2010* (2nd ed.). Washington, DC: U.S. Government Printing Office.
- Walker, D. S., & Koniak-Griffin, D. (1997). Evaluation of a reduced-frequency prenatal visit schedule for low-risk women at a free-standing birthing center. *Journal of Nurse-Midwifery*, 42(4), 295–303.
- Walker, D. S., & Rising, S. S. (2004–2005). Revolutionizing prenatal care: New evidence-based prenatal care delivery models. *Journal of New York State Nurses Association*, 35(2), 18–21.

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