



ACOG COMMITTEE OPINION

Number 731 • March 2018

Committee on Obstetric Practice

This Committee Opinion was developed by the American College of Obstetricians and Gynecologists' Committee on Obstetric Practice in collaboration with committee members Brigid K. McCue, MD, PhD; and Ann E. Borders, MD, MSc, MPH; and the American Academy of Family Physicians' liaison member Beth Choby, MD.

Group Prenatal Care

ABSTRACT: Individual prenatal care is intended to prevent poor perinatal outcomes and provide education to women throughout pregnancy, childbirth, and the postpartum period through a series of one-on-one encounters between a woman and her obstetrician or other obstetric care provider. Concerns regarding increasing health care costs, health care provider availability, dissatisfaction with wait times, and the minimal opportunity for education and support associated with the individual care model have given rise to interest in alternative models of prenatal care. One alternative model, group prenatal care, may be beneficial or preferred for some practice settings and patient populations, although individual prenatal care remains standard practice. Group prenatal care models are designed to improve patient education and include opportunities for social support while maintaining the risk screening and physical assessment of individual prenatal care. Bringing patients with similar needs together for health care encounters increases the time available for the educational component of the encounter, improves efficiency, and reduces repetition. Evidence suggests patients have better prenatal knowledge, feel more ready for labor and delivery, are more satisfied with care in prenatal care groups, and initiate breastfeeding more often. There is no evidence that suggests that group prenatal care causes harm. Individual and group care models warrant additional study with a goal of demonstrating differences in outcomes and identifying populations that benefit most from specific care models.

Recommendations and Conclusions

The American College of Obstetricians and Gynecologists makes the following recommendations and conclusions:

- Group prenatal care models are designed to improve patient education and include opportunities for social support while maintaining the risk screening and physical assessment of individual prenatal care.
- Studies appear to demonstrate high levels of patient satisfaction, obstetric outcomes equally efficacious as individual prenatal care, and improved outcomes for some populations.
- Specific group prenatal care models can be challenging to initiate and maintain. The cost of initiating a group prenatal care model in current obstetric practices may be a barrier to implementation.
- When participation in group prenatal care is offered, it should be provided as an alternative option to traditional prenatal care and not mandated. Indi-

vidual and group care models warrant additional study with a goal of demonstrating differences in outcomes and identifying populations that benefit most from specific care models.

Introduction

Individual prenatal care is intended to prevent poor perinatal outcomes and provide education to women throughout pregnancy, childbirth, and the postpartum period through a series of one-on-one encounters between a woman and her obstetrician or other obstetric care provider. The American College of Obstetricians and Gynecologists recommends routine regularly scheduled visits that consist of objective assessments, testing, maternal support, and education (1, 2). Concerns regarding increasing health care costs, health care provider availability, dissatisfaction with wait times, and the minimal opportunity for education and support associated with the individual care model have given rise to interest in alternative models of prenatal care. One alternative

model, group prenatal care, may be beneficial or preferred for some practice settings and patient populations, although individual prenatal care remains standard practice.

Group prenatal care models are designed to improve patient education and include opportunities for social support while maintaining the risk screening and physical assessment of individual prenatal care. Bringing patients with similar needs together for health care encounters increases the time available for the educational component of the encounter, improves efficiency, and reduces repetition. Evidence suggests patients who participate in group prenatal care have better prenatal knowledge, feel more ready for labor and delivery, are more satisfied with overall care, and initiate breastfeeding more often (3). Group care has been used successfully in a variety of medical settings for management of chronic medical conditions such as chronic pain, human immunodeficiency virus (HIV) or acquired immunodeficiency syndrome (AIDS), cancer, diabetes, and congestive heart failure (4–9). Pediatric group care models also are emerging (9, 10).

Models of Group Prenatal Care

Several group care models have been described, such as Expect with Me (11), Pregnancy and Parenting Partners (www.pregnancyandparentingpartners.org), and *Expecting and Connecting* in Queensland, Australia (12). These models often are adaptations of the CenteringPregnancy program, which is in use internationally and is the most widely studied model. First piloted in 1993, the CenteringPregnancy program is characterized by essential standardized elements that guide the structure and content of the group sessions, and emphasize health-promoting behaviors (13). Assembled at the start of the second trimester, groups are composed of approximately 8–10 women of similar gestational age, their support partners, an obstetrician or other obstetric care provider, and co-facilitator and meet every 2–4 weeks. A series of 10 visits, each lasting 90–120 minutes, are scheduled over a 6-month period, concluding in the last month of pregnancy. Each session begins with socializing opportunities, self-data collection, and a brief one-on-one interaction with the obstetrician–gynecologist or other obstetric care provider for individual assessment and solicitation of patient concerns. Most of the visit is then spent in facilitated discussion of topics suggested by the curriculum but prioritized by the group. Obstetricians and other obstetric care providers are trained to enhance adult learning by avoiding didactic lectures and facilitating peer-to-peer learning through robust participation of women and their support partners. Discussion topics include childbirth preparation, nutrition and exercise, health self-awareness, stress management, breastfeeding, and contraception (13). Pregnancy complications are managed through supplemental individual visits and as-needed specialist referrals, although routine prenatal

care and health assessments usually continue within the group.

In theory, the expanded visit time and opportunity for in-depth peer-to-peer personal discussion facilitates learning opportunities and social support. Prenatal educational information is reliably communicated to the patients in a manner that avoids repetition for patients and obstetricians and other obstetric care providers. Some patients appreciate the ease of long-term scheduling, avoidance of wait times, and the unique and long-term social bonds that develop within the group, sustaining patients through unforeseen outcomes and into the postpartum period.

Outcomes Research

The existing body of literature evaluating group prenatal care, although growing, is relatively small and includes mostly observational studies yielding a mix of positive and negative results. These have demonstrated reductions in preterm birth and neonatal intensive care unit (NICU) admissions; increased birth weight for term and preterm infants; increased rates of breastfeeding initiation and continuation; decreased emergency department visits in the third trimester; improved pregnancy-related weight management; an increase in patients presenting in active labor and at greater cervical dilatation; increased patient and obstetrician and other obstetric care provider satisfaction; and improved knowledge of childbirth, family planning, postpartum depression, and early child rearing (3, 14–21). A 2017 retrospective cohort study of 207 group care patients matched with 414 traditional prenatal care patients showed similar baseline characteristics between the two groups, but group care was associated with significant reduction in low-birth-weight infants compared with individual care (11.1% versus 19.6%; relative risk [RR], 0.57; 95% CI, 0.37–0.87). Patients in group care were significantly less likely than controls to require cesarean delivery, have low 5-minute Apgar scores, and need higher level neonatal care (1.5% versus 6.5%; RR, 0.22; 95% CI, 0.07–0.72) (16).

Although initial observational trials and a large randomized controlled trial (RCT) of group prenatal care that included 1,047 women found significant improvement in perinatal outcomes, including preterm birth risk reduction of 33% (OR, 0.67; CI, 0.44–0.99, $P=.45$), with the largest reduction in preterm birth for low-income black women (OR, 0.59; CI, 0.38–0.92, $P=.02$) (3), a Cochrane review of group prenatal care that included four RCTs ($n=2,350$ women) reported no statistically significant differences for the primary outcomes of preterm birth (RR, 0.75; 95% CI, 0.57–1.00), low birth weight (less than 2,500 g) (RR, 0.92; 95% CI, 0.68–1.23), small for gestational age (RR, 0.92; 95% CI, 0.68–1.24), perinatal mortality (RR, 0.63; 95% CI, 0.32–1.25), or initiation of breastfeeding (RR, 1.08; 95% CI, 0.96–1.2) (22). A meta-analysis of 10 observational studies and four RCTs similarly found no statistically significant difference in

the primary outcomes of preterm birth (RR, 0.87; 95% CI, 0.70–1.09), low birth weight (limited to three high-quality RCTs: RR, 0.92; 95% CI, 0.64–1.32), breastfeeding initiation (RR, 1.08; 95% CI, 0.99–1.17), or NICU admission (RR, 0.91; 95% CI, 0.68–1.23) (23).

Special Populations

Racial and ethnic disparities persist in the prevalence of preterm birth and infant mortality, and group prenatal care may be particularly useful in addressing disparities in perinatal outcomes such as preterm birth among black women. Differences in perinatal outcomes by race or ethnicity and socio-economic status, and patient satisfaction outcomes were not evaluated in the Cochrane Review (22) or reported as a main outcome in the meta-analysis (23). Analysis of trials of group prenatal care in specific at-risk populations shows promise in addressing these disparities. Although the meta-analysis (23) reported similar rates of preterm birth, overall, in the individual and group prenatal care arms, outcomes in low-income black women suggest reduced risk of preterm birth with group care (RR, 0.55; 95% CI, 0.34–0.88) (23). The largest RCT also found that black women as a group had the greatest reduction in preterm birth, with a rate of 10.0% in group care compared with 15.8% among those who received traditional prenatal care (OR, 0.59; 95% CI, 0.38–0.92; $P=.02$) (3). Preterm birth among Latina women who participated in group prenatal care was not significantly different (5.5% versus 5.9%, RR, 1.05; 95% CI, 0.37–2.99) (23). Because race was not included in the data collection, neither the meta-analyses nor the comprehensive review was able to assess racial differences in low birth weight, NICU admission, or breastfeeding initiation. Because of heterogeneity in the primary studies, neither the meta-analyses nor the comprehensive review assessed patient and obstetrician or obstetric care provider satisfaction and improved knowledge of childbirth, family planning, postpartum depression, or early child rearing. Both analyses are limited by the preponderance of observational and smaller trials.

The emphasis placed on education and social support in group prenatal care is hypothesized to be advantageous to the adolescent population. Several trials of this population suggest that adolescent group prenatal care is associated with higher patient satisfaction, increased self-esteem, decreased social conflict, increased visit attendance, improved weight management, increased breastfeeding, increased rates of postpartum contraception, and decreased incidence of repeat pregnancy within 12 months (3, 24–27). However, most study designs excluded adolescents who did not attend most of the scheduled visits, which resulted in additional selection bias.

Group prenatal care also has been hypothesized to address the stressors borne by women in the military. An RCT of group prenatal care in the military setting found an increase in visit attendance (OR, 5.92; 95% CI,

3.21–10.91), patient satisfaction ($P<.001$), and women less likely to report “feelings of guilt and shame” ($P=.04$). However, no differences were seen in rates of preterm birth, breastfeeding, perinatal and infant health, and depression (28).

Nonpregnant women with diabetes show improved disease management using group care models. Pregnant women with diabetes are another group thought to benefit from the added education and social support offered by group prenatal care. To date, no such randomized trials have been performed in this population. Observational studies show that women with diabetes in group prenatal care improved their hemoglobin A_{1c} levels, less often progressed to needing insulin or other medications, and were more likely to breastfeed and to adhere to postpartum glucose tolerance screening. However, no improvement in fasting blood glucose or number of visits attended was seen, and there was no difference in neonatal outcomes (29–31).

In summary, obstetric outcomes for women participating in group prenatal care are at least equivalent to traditional prenatal care. There is no evidence that suggests that group prenatal care causes harm. Larger, randomized trials are needed to identify subpopulations that might benefit from different models of prenatal care.

Challenges to Implementation

Specific group prenatal care models, such as CenteringPregnancy, can be challenging to initiate and maintain. Training for obstetricians, obstetric care providers, and facilitators; site certification; and ongoing data collection are encouraged to ensure model fidelity. Dedicated meeting space is optimal but not easily available in all locations, which might, for instance, necessitate the use of the waiting area after hours. Child care is usually not available. Although confidentiality and Health Insurance Portability and Accountability Act (HIPAA) compliance are addressed within group prenatal care, the potential loss of privacy is unattractive to some patients. Because group prenatal care is not a good fit for every patient, when participation in group prenatal care is offered, it should be provided as an alternative option to traditional prenatal care and not mandated.

The cost of initiating a group prenatal care model in current obstetric practices may be a barrier to implementation. Centering Healthcare Institute instructor training and site approval incur start-up costs, although the Centering Healthcare Institute offers preliminary readiness assessment for practices interested in implementation, and grants are available. Ongoing costs (eg, patient notebooks and snacks, supplies for group activities, program coordination, meeting space set up and breakdown) can be cost prohibitive without a sustainable funding source or the availability of enhanced reimbursement above the standard set for prenatal visits. Although a few commercial insurance companies and several states reimburse at higher levels for Medicaid patients who

participate in validated group care models, enhanced reimbursement is not widely available. One cost analysis of group prenatal care that used actual claims paid data for women enrolled in Medicaid in South Carolina found it to be cost effective through improved pregnancy outcomes. Although a \$2.3-million-dollar savings was reported after initial investment (32), these data may not be generalizable to other states and populations with a different racial mix or lower rates of prematurity and low-birth-weight infants. One study developed mathematical cost-benefit models to forecast the cost of group prenatal care with various payer mixes and facilitators and predicted financial sustainability and possibly income generated for the outpatient clinic (33).

Opportunity for Future Research

Group prenatal care offers a promising alternative for patients, their partners, and obstetricians and other obstetric care providers. Although evidence to support group prenatal care models still is emerging, studies appear to demonstrate high levels of patient satisfaction, obstetric outcomes equally efficacious as individual prenatal care, and improved outcomes for some populations. Further studies are needed to clarify the effect that group prenatal care may have on patients at higher risk of preterm delivery, including black women, adolescents, and others. The effect on partners of women who participate in group prenatal care offers additional promising areas of investigation (34). Additional technological adaptations that incorporate elements of telemedicine and supportive social media into the group care model, such as the “high touch–high tech” modifications of Expect With Me, have the potential to lower cost and increase the reach of group prenatal care and also deserve careful study (11). Long-term assessment of the effect of the group prenatal care model is warranted.

Conclusion

Experts suggest that “group prenatal care is an innovative and promising model with comparable pregnancy outcomes to individual prenatal care in the general population and improved outcome in some demographic groups” (35). Individual and group care models warrant additional study with a goal of demonstrating differences in outcomes and identifying populations that benefit most from specific care models.

For More Information

The American College of Obstetricians and Gynecologists has identified additional resources on topics related to this document that may be helpful for ob-gyns, other health care providers, and patients. You may view these resources at www.acog.org/More-Info/GroupPrenatalCare.

These resources are for information only and are not meant to be comprehensive. Referral to these resources does not imply the American College of Obstetricians and Gynecologists’ endorsement of the organization, the

organization’s website, or the content of the resource. The resources may change without notice.

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Group prenatal care. ACOG Committee Opinion No. 731. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2018; 131:e104–8.

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