OBSTETRICS

The impact of Centering Pregnancy Group Prenatal Care on postpartum family planning

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OBJECTIVE: The objective of the study was to evaluate the impact of group prenatal care (GPNC) on postpartum family-planning utilization.

STUDY DESIGN: A retrospective cohort of women continuously enrolled in Medicaid for 12 months (n = 3637) was used to examine differences in postpartum family-planning service utilization among women participating in GPNC (n = 570) and those receiving individual prenatal care (IPNC; n = 3067). Propensity scoring methods were used to derive a matched cohort for additional analysis of selected outcomes.

RESULTS: Utilization of postpartum family-planning services was higher among women participating in GPNC than among women receiving IPNC at 4 points in time: 3 (7.72% vs 5.15%, $P < .05$), 6 (22.98% vs 15.10%, $P < .05$), 9 (27.02% vs 18.42%, $P < .05$), and 12 (29.30% vs 20.38%, $P < .05$) months postpartum. Postpartum family-planning visits were highest among non-Hispanic black women at each interval, peaking with 31.84% by 12 months postpartum. After propensity score matching, positive associations between GPNC and postpartum family-planning service utilization remained consistent by 6 (odds ratio [OR], 1.42; 95% confidence interval [CI], 1.05–1.92), 9 (OR, 1.43; 95% CI, 1.08–1.90), and 12 (OR, 1.44; 95% CI, 1.10–1.90) months postpartum.

CONCLUSION: These findings demonstrate the potential that GPNC has to positively influence women's health outcomes after pregnancy and to improve the utilization rate of preventive health services. Utilization of postpartum family-planning services was highest among non-Hispanic black women, further supporting evidence of the impact of GPNC in reducing health disparities. However, despite continuous Medicaid enrollment, postpartum utilization of family-planning services remained low among all women, regardless of the type of prenatal care they received.

Key words: Centering Pregnancy, family planning, group prenatal care, postpartum, prenatal care

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The interconception period from the postpartum visit and until the following pregnancy is an important time for a woman's health, offering an opportunity to address chronic medical and psychosocial conditions, smoking cessation, and weight loss.[1] Equally important is family planning to enable women to space their pregnancies, lowering their risk for low birthweight and premature birth, both linked with infant mortality.[2] This is important because nearly half (49%) of all pregnancies in the United States each year are unintended, and of these, about 43% end in abortion.[3]

★ EDITORS' CHOICE ★

Pregnancy intention and appropriate birth spacing also carry many personal benefits, affording women greater chances of achieving educational and career goals. The realization of such goals translates to economic benefits for both

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families and society because of the personal and public cost savings associated with fewer unplanned children.[4] Many states recognize the importance of this sensitive time period and subsidize the receipt of family-planning services through the various mechanisms that include Medicaid, Medicaid family-planning waiver programs, Title X, and the Title V Maternal and Child Health Block Grant. These services are delivered through a network of public and private providers including local health departments and other safety net providers.[5]

Developing appropriate programs and policies that enable women to access postpartum family-planning services is important for women's and infant health as well as for women to be able to realize their personal and professional goals. Currently routine postpartum care includes patient education that informs women about family-planning services and the benefits of using them; however, evidence demonstrating the effectiveness offering such education postpartum is relatively weak.[6] Limited research suggests prenatal counseling may play a significant role in initiation of postpartum family-planning utilization.[7]

Centering Pregnancy is an innovative prenatal care program that may contribute positively to the transition from childbirth to postpartum life that includes the use of family planning. The Centering Pregnancy model of group prenatal care (GPNC) has been described by Sharon Schindler-Rising[8-12] in publications detailing the content of the unique curriculum and style of care.[13] The Centering Healthcare Institute (Boston, MA) provides technical assistance and curricular materials to practices providing this model of prenatal care. This GPNC model includes a curriculum delivered in a series of 10 group sessions over a 6 month period of time.

During each 2-hour session, groups of 8-12 pregnant women due to deliver in the same month receive a physical assessment from a credentialed health care provider, participate in an educational curriculum, and are provided with a supportive environment that allows for relationship-building among participants.[13] In most groups, prenatal care is provided by certified nurse midwives or nurse practitioners. Women with medically high-risk pregnancies, such as those with chronic hypertension, pregestational diabetes, or multiple gestations, are typically considered ineligible for group care because they might require more intensive medical management than can be provided in a group setting.[9]

Initial studies on the GPNC model have been encouraging and suggest that women participating in GPNC may experience improvements in both health outcomes and health behaviors.[9] Although the body of literature is not fully conclusive, selected studies do suggest that GPNC participants experience decreases in the rates of preterm birth[10,11] and increased birthweights[9,12] relative to their counterparts receiving individual prenatal care (IPNC). Other studies also suggest increased rates of breastfeeding,[9,10,13,14] improved patient satisfaction with prenatal care received,[9,10,13,15] and improved readiness for childbirth and parenting.[9,10,16]

The Centering Pregnancy educational curriculum includes sessions on family planning. However, the effects of participation in GPNC on postpartum health service utilization, including family-planning services, have not been studied. We posit that targeted facilitation of group discussion on key material contained in the curriculum and continued peer support could serve to reinforce important messages related to postpartum family-planning utilization among women participating in GPNC that would not be present for women receiving IPNC delivered through a traditional clinic-based service delivery model.

We sought to evaluate the effects of participation in GPNC on the utilization of family-planning services following delivery, compared with women who had received IPNC.

Materials and Methods

In March 2009, the Greenville Health System obstetric practice began providing Centering Pregnancy GPNC according to the trademarked curriculum. Formal site approval was granted by the Centering Healthcare Institute in February 2010. Participation in GPNC was not randomized; rather, women were free to select the care pathway they preferred. Each month, approximately 30-45 women chose to receive GPNC and were assigned to one of 3 or 4 new groups each month. The total number of groups attended was recorded for each participant, and women were permitted to withdraw from GPNC and continue with IPNC if desired. Participation in GPNC was defined as attendance at even 1 group session.

Medical care in groups was provided by nurse practitioners and certified nurse midwives, who also served as the main facilitators of each group. Nursing assistants served as cofacilitators. Historically, the majority of Medicaid-eligible women delivering at Greenville Memorial Hospital (85%) receive their prenatal care in the same hospital-owned clinic offering GPNC. Therefore, the majority of women in the matched cohort would have received IPNC from the same nurse practitioners and nurse midwives providing GPNC. A minority would have been seen in 1 of the 5 affiliated private practices also seeing Medicaid-eligible patients. After the first 8 months of implementation, many groups also included a medical student, a resident physician in family medicine, or a resident physician in obstetrics and gynecology.

In October 2011, the authors received approval from the Institutional Review Boards of the Greenville Health System and the University of South Carolina (Pro00013703) to analyze postpartum family-planning utilization among participants in GPNC and recipients of IPNC. A retrospective cohort of Medicaid-insured women with a singleton live birth occurring at Greenville Memorial Hospital between March 2009 and March 2012 was drawn from the vital statistics databases maintained at the Office of Research and Statistics (ORS) of the South Carolina Budget and Control Board. ORS serves as a repository for all health information in the State of South Carolina, including mandatory reporting for all vital records, hospital discharges, and Medicaid billing files. The ORS data oversight committee, which is equivalent to an institutional review board, also approved the data release.

Because women must enroll in GPNC early in gestation and because the