Original Study

Which Pregnant Adolescents Would be Interested in Group-Based Care, and Why?

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A B S T R A C T

Study Objective: To determine if pregnant adolescents interested in group-based prenatal care have different demographic and psychosocial characteristics than those interested in individual prenatal care. Factors that influence the preferred model of prenatal care patients were assessed.
Design, Setting, and Participants: Prospective comparison of demographic and psychosocial characteristics of 153 pregnant adolescents enrolled in an adolescent-oriented prenatal and pediatric program at Children's Hospital Colorado.
Interventions: None.
Main Outcome Measures: Pregnant study participants were queried and their preferred mode of prenatal care and reasons for that preference were examined.
Results: Younger (16 years and younger) and primiparous adolescents were more likely to be interested in group care. Those not interested in group-based care were more likely to smoke and wanted to be pregnant. Most participants were interested in group-based prenatal care to belong to a peer group, receive additional education and support, and to have fun. Reasons participants were not interested in group-based care included concerns about belonging to a group, preferring individual care, and experiencing logistical concerns such as scheduling conflicts, limited transportation, and childcare resources.
Conclusions: Identifying which patients are interested in group prenatal care influences development of the program model and recruiting procedures, maximizing the effectiveness of the program by offering services based on patient needs. Identifying factors that influence patients' prenatal care choices enables providers to offer support to reduce barriers to participation and structure care that is best suited to patients willing to commit to and engage in the program.
Key Words: Pregnancy, Group-based care, Prenatal care, Adolescents, Patient choice

Introduction

Adolescence is a time of developmental and emotional transitions requiring adolescents to navigate many challenges and difficulties.[1,2] These dramatic shifts become more complex when an adolescent is pregnant.[3] While the number of births to adolescent mothers has declined in the United States, rates remain the highest among industrialized nations.[4] There are health, social, and economic consequences of adolescent pregnancy and birth that affect the adolescents, their children, and society. Health consequences for pregnant adolescents include gestational hypertension, anemia, obstructed and prolonged labor, and infections, while birth complications include premature delivery and low birth weight infants.[5] Adolescent pregnancy and birth have been associated with poor educational achievement, poverty, and social deprivation.[5]

Prenatal care services are provided with the goal to minimize preventable complications and optimize maternal and fetal health.[6,7] Traditionally, the primary focus within prenatal care systems is physical health monitoring,[6] although ideally, comprehensive models of prenatal care would also include education and psychosocial support.[8–10] This is especially critical for pregnant adolescents to address the dramatic transitions and challenges they experience.[11,12] However, education and psychosocial support services are often considered ancillary and offered in limited capacity due to time and resource constraints.[13]

Within the past 15 years, models of group-based prenatal care (GPNC) have been developed to integrate health assessment, education, and support components. In the most common model of GPNC, these components are typically delivered in 10 sessions with groups of 10 to 12 women with similar gestational ages beginning in the second trimester of pregnancy.[14] Several studies of GPNC have been completed, although only 1 assessed outcomes specifically for pregnant adolescents enrolled in GPNC.[12] The majority of the studies have not examined characteristics of patients choosing group versus individual care, and there has been limited research describing factors that influence a patient's decisions to choose GPNC.[15–17]

The Colorado Adolescent Maternity Program (CAMP) at the University of Colorado, School of Medicine and Children's Hospital Colorado is a multidisciplinary, adolescent-oriented prenatal, postpartum, and pediatric care program. The CAMP's model of individual care serves

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pregnant adolescents aged 14 to 21 years and provides medical care and case management services. These services continue to be offered to the mother and infant in joint visits after delivery. During the study period, a model of GPNC was being developed but was not yet available to patients. The CAMP patients were asked to share their thoughts and opinions about the new GPNC program. This new GPNC model consists of groups of 10 to 12 young women who have estimated due dates within a 6-week range. Each group meets every 2 weeks, beginning when participants are at 12 to 18 weeks' gestation, and continues through the infants' first birthday. The CAMP group care model was developed to address some of the limitations of GPNC and to specifically address the needs of pregnant and parenting adolescents.

This study had 2 main objectives. The first objective was to determine if pregnant adolescents interested in GPNC have different demographic and psychosocial characteristics than those preferring individual prenatal care. Understanding the characteristics of pregnant adolescents who are interested in GPNC rather than individual prenatal care is useful because recruitment methods for group care models may be improved in order to make such programs more appealing to certain groups of pregnant adolescents. Also, understanding these characteristics allows the group care model to be tailored to best meet the needs of patients choosing to participate in group. The second objective of this study was to explore factors that influence the model of prenatal care patients would prefer. These factors may highlight perceived benefits and barriers for each care option and allow for improvements in how care options are presented and discussed with patients. Understanding these factors allows the program to be effectively marketed to the target population and can enhance recruitment for GPNC programs.

Materials and Methods

Participants

The study participants were a convenience sample of pregnant adolescents, aged 21 years and younger, who were receiving prenatal care at CAMP, who were English speaking, and who were willing to participate in the study. Participants were excluded when they did not meet all 4 inclusion criteria. All patients who enroll in CAMP are offered participation in ongoing institutional review board–approved research, approved by the Colorado Multiple Institutional Review Board. This study falls under the CAMP general research informed consent.

Procedures

Data were obtained prospectively from patients attending prenatal appointments at CAMP for 2 periods (September 2009 to January 2010 and May to October 2013) as the GPNC program was being developed and again before implementation of the pilot. Three research assistants approached patients, explaining the purpose of the study and risks and benefits of participation. An overview of the GPNC program was presented by using a script. After hearing about the program, study participants were asked to complete a 5-item survey, developed by the researchers, to determine impressions about the newly developed group-based option of care to be offered at CAMP (Appendix). This project was completed as part of the development process of GPNC, before group care was an actual option for prenatal care in CAMP. Participant opinions about the group care program were collected while patients were receiving individual prenatal care before their participation in GPNC.

The first survey item used a continuous rating scale that asked study participants how likely they would be to participate in group care on a scale of 1 to 10 (1 = not at all likely and 10 = extremely likely). Participants were dichotomized as “Interested” (I) when they provided a rating of 6 to 10 as they were more likely than not to want to participate in the group care program or “Not Interested” (NI) when they provided a rating of 1 to 5 as they preferred individual care. The second item asked participants to provide open-ended responses explaining their rationale for their selection, listing the reasons why they would or would not be interested in group care. The next 2 items asked what participants liked and did not like about the program. The final question asked participants if there was anything else they would like to share regarding the idea of receiving care in a group setting. The program overview and survey completion took approximately 5 minutes to complete.

Data were entered directly by patients on an iPad® into the Research Electronic Data Capture (REDCap) system,[18] a secure, web-based application hosted by the University of Colorado. For patients who were not comfortable entering data on the iPad®, a hard-copy version of the survey was provided. For patients with literacy issues, the research assistants read the survey questions, recording the patients' verbal responses. Data were deidentified and stored in REDCap on a secure server.

Demographic and psychosocial variables, reproductive characteristics, and reasons for pregnancy were extracted from the CAMP database, the Electronic Report on Adolescent Pregnancy (ERAP).[19] The ERAP compiles responses to the self-administered questionnaires that are used to collect information about program participants: (1) medical, psychological, sexual, and reproductive histories; (2) social context of their pregnancies; (3) clinical and research evaluations conducted by the CAMP staff; and (4) supplemental data abstracted from maternal and child medical records.

Variables

Demographic variables include age, race/ethnicity, education, and body mass index (BMI; kg/m^2). Age at conception was calculated using the estimated first day of the last menstrual period and date of birth. Age was dichotomized as 16 years or younger as studies consistently demonstrate that adolescents who conceive when they are 16 years or younger are at a risk for adverse pregnancy, parenting, and personal outcomes.[20–24] Race/ethnicity was