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Prenatal Psychosocial Risk Assessment using Event History Calendars with Black Women

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Abstract

Objective—To explore the clinical acceptability and perceptions of use of a prenatal event history calendar (Prenatal EHC) for prenatal psychosocial risk assessment in Black *pregnant women*.

Design—A qualitative descriptive study focused on interviews and Prenatal EHCs completed by Black *pregnant women*.

Setting—Inner city hospital prenatal care clinic in Southeastern Michigan.

Participants—Thirty 18–35 year old pregnant Black women receiving prenatal care at the participating clinic.

Methods—Women completed the prenatal EHCs and their perceptions of its use were obtained through face to face interviews. The constant comparative method of analysis (Glaser, 1978, 1992) revealed themes from participants' descriptions about use of a Prenatal EHC for prenatal psychosocial risk assessment.

Results—Three main themes emerged describing how the Prenatal EHC enhanced communication. The Prenatal EHC provided “an opening” for disclosure, “an understanding with you,” and a way for providers to “know you, your life, and future plans.” The participants' completed Prenatal EHCs included information regarding their pre-pregnancies, trimester histories, and future plans. These completed Prenatal EHCs showed patterns of change in life events and behaviors that included worries, stressors, and risk behaviors. The participants perceived the Prenatal EHC as an easy to use tool that should be used to improve communication with health care providers.

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Conclusions—The Prenatal EHC allows the patient and provider to “start on the same page” and provides an additional avenue for discussion of sensitive psychosocial issues with Black *pregnant women*. As a clinical tool, the Prenatal EHC facilitated patient-provider communication for pregnant women often marked by health disparities. The Prenatal EHC is a clinically acceptable tool to assess for psychosocial risk factors of Black women in a prenatal clinical setting.

Keywords

psychosocial risk assessment; prenatal care; event history calendars; Black *pregnant women*

In 1985, the Institute of Medicine (IOM) issued a report highlighting the relationship between the leading cause of infant mortality, low birth weight, and prenatal care utilization risk factors such as low socioeconomic status, low education, and *minority status*. Since that time expansive public health efforts to increase prenatal care access and availability have been made for low-income pregnant women and children (Alexander & Kotelchuck, 2001; Lu, Tache, Alexander, Kotelchuck, & Halfon, 2003). As a result, the American College of Obstetricians and Gynecologists (ACOG) committee on Health Care for the Underserved Women (ACOG, 2006) *recognized* the need for more complete care in this high risk population and *advocated* for comprehensive psychosocial screening during the prenatal period.

Prenatal care is a critical time period for health care providers to address the biomedical and psychosocial issues of pregnant women. ACOG (2006) *characterized* psychosocial issues as non-biological or non-medical factors that may influence physical or mental health. Prenatal care presents an opportune time to establish rapport with *women* to create an environment conducive for the exchange of health information specifically related to the childbearing period.

Event History Calendars

Event history calendars (EHC) *incorporate* interviews and visualization of events using a calendar format to facilitate the recall of past experiences and begin conversation about clinically-relevant topics (Martyn, Reifsnider, & Murray, 2006). This process provides cues for autobiographical memory retrieval (Martyn & Martin, 2003). According to Means and Loftus (1991), the use of event history calendars provides multiple retrieval cues and improves recall. In fact, in relation to other approaches used to provide retrieval cues, the EHC is the closest in resemblance to the structure of autobiographical memory, contributing to its success in improving recall (Belli, 1998). Event history calendars were originally used for retrospective data collection (Martyn & Belli, 2002) and assessment of health risk transitions (Caspi et al., 1996). However, more recent work has focused on the use of EHCs in facilitating communication about risk behavior (Martyn & Martin, 2003), risk behavior avoidance (Martyn & Hutchinson, 2001), and tailoring health interventions (Olds, 2006).

The prenatal event history calendar (Prenatal EHC) was developed from data collected through focus groups with Black women receiving prenatal care in a large Midwestern city (Yi, Lori, & Martyn, 2008). During the development of the Prenatal EHC, Yi, Lori, and Martyn (2008) found that Black women desired more discussion of psychosocial factors during their prenatal care visits which the women described as “going off the pregnancy” (p. 467). Five psychosocial themes were revealed from the interviews with Black pregnant women: relationships, stress, routines, health history perceptions, and beliefs. These themes were then used to develop the Prenatal EHC (Yi, Lori, & Martyn, 2008).

The final version of the Prenatal EHC has column headings to depict the timeframe before pregnancy, during each trimester of pregnancy, and after the pregnancy (see Table 2). The row headings of the calendar list the information that patients and providers would find important to share and discuss during the course of prenatal care including living arrangements, neighborhood characteristics, employment, relationships, significant events, pregnancy history, past medical history, routines, nutrition, risk behaviors, beliefs, stressors, and discrimination. Although the Prenatal EHC has not been used in clinical practice, this type of tool has been found to be clinically feasible in a study that evaluated its ability to increase patient-provider communication about similar histories with adolescent patients (Martyn, Reifsnider, & Murray, 2006). Additionally, the Prenatal EHC demonstrates face validity because the domains captured in each row of the tool coincide with the components of psychosocial screening recommended by ACOG (2006) and by prenatal patients in the tool development study conducted by Yi, Lori, and Martyn (2008). This tool therefore has the potential to increase patient-provider communication by allowing the *woman* to update the calendar with significant life events during each trimester of pregnancy. This descriptive study extends prior research to explore the clinical acceptability and perceptions of use of a Prenatal EHC for psychosocial risk assessment in Black prenatal patients.

Theoretical Framework

The Interaction Model of Client Health Behavior is a nursing model developed by Cox (1982) as a way to describe a process of care in which self-care is seen as a paramount determinant of a patient's health and specifically addresses *patient-initiated professional contact*. The underlying assumption inherent in the model involves the patient's control to make decisions regarding their health care. The constructs within the model supporting these assumptions are the elements of patient singularity, patient-professional interaction, and health outcomes (Cox, 1982). Patient singularity encompasses the background variables, motivation, cognitive appraisal, and affective responses of the individual (Cox, 1982). This model was used as a framework for development of the Prenatal EHC and also provides a basis from which to explore its use in the clinical setting. Thus, when the assumptions of this model are applied to a prenatal care patient, it can be used to assess patient-provider communication during a routine prenatal visit, *representing* the elements of the patient-professional interaction (Cox, 1982). Furthermore, the Prenatal EHC as a clinical tool can be useful in describing the singularity of the patient.

Methods

A descriptive qualitative design was used to explore the clinical acceptability of using the Prenatal EHC in routine prenatal care visits and the perceptions of its use among a population of pregnant Black women in a large Midwestern city. Qualitative data *were* collected *using* two methods. First, participants completed the Prenatal EHC. Second, brief face to face interviews were conducted with the participants after completion of the Prenatal EHC to inquire about the participant's perceptions of the use of the calendar for prenatal history-taking and satisfaction. Institutional review board approval was obtained from the University of Michigan and the prenatal clinic site where data *were* collected.

Sample and Setting

A convenience sample of 30 Black pregnant women was recruited from an inner-city prenatal clinic in Southeastern Michigan. Flyers and snowball sampling were used to advertise the study and health center staff referred potential participants to the investigators. Sample recruitment took place over a six week time period. Inclusion criteria were Black pregnant women, 18–35 years of age, prenatal patients at the clinic with at least two prenatal care visits, and the ability to read and write English. Due to the short time frame of data

collection, the Prenatal EHCs were completed and interviews were conducted at any time in the pregnancy, as long as the participant had attended at least two prenatal care visits.

Data Collection

The research team met with interested participants in the clinic waiting room to explain the study and obtain informed consent. There were no participant refusals after informed consent was obtained. The participants were asked to complete the Prenatal EHC, a demographic questionnaire, and five other scales that are not *reported* in this paper (prenatal care communication, pregnancy attitudes, intentions, risk perceptions, and a perceived stress scale). Afterwards, the participants took part in a semi-structured interview to evaluate the Prenatal EHC using an open-ended question interview guide. The interviews were guided by questions designed to assess participant's satisfaction with the Prenatal EHC and their perceptions of its use in prenatal care. Sample questions included, "What do you think of the prenatal care calendar that you just filled out? What do you think of it being used in a prenatal visit?" The participants were interviewed immediately after completing the Prenatal EHC and were allowed to look at the EHC during the interview to allow for accurate reflection on the tool and its potential use.

Data were collected by the members of the research team in clinic areas that offered privacy (e.g., conference or exam rooms) and total data collection time lasted an average of about 60 minutes. The average completion time for the Prenatal EHC was 10–15 minutes with a range of 5–20 minutes. The interviews were audio taped and then transcribed verbatim by a transcriptionist. The interviewers debriefed the participants following the interview sessions. Each participant received \$50 for her time and participation.

Data Analysis

Data were analyzed using descriptive statistical and qualitative analyses. Simple descriptive statistics were analyzed using SPSS version 17.0 to assess participant demographic characteristics. Quantitative data were entered and then double checked for accuracy. Qualitative data analysis was undertaken using the constant comparative method of analysis described by Glaser (1978, 1992) and content analysis to gather a larger breadth of information on sample characteristics and risk behaviors. Qualitative data analysis was guided by the research question, "What do participants think about using the prenatal event history calendar during their prenatal visits?"

The constant comparative method of analysis outlined by Glaser (1978, 1992) was employed by the team of authors to identify core themes. This technique of data analysis first involves reading through the data to procure general impressions of the data. Next, data were meticulously reviewed line by line to identify general ideas. During this portion of the analysis, coding of the data began by taking notes and memos on significant points and ideas from the transcribed interviews. These notes were then reviewed and categorized with the use of the memos until data saturation occurred. Several core themes were repeatedly identified including topics about the use of the Prenatal EHC for prenatal care assessment and for its ability to enhance communication that is understandable/reasonable, important, personal, and comprehensive. The idea of enhanced communication included such sub-topics as reflective, provided insight for the doctor, and presented further topics for discussion. Each theme was then reviewed until core themes were recognized. The first author completed the initial steps of analysis independently. The core themes that were initially identified were then reviewed again by all authors to distinguish commonalities in themes across the interviews. Consensus on study themes by all authors was achieved before final compilation into the main themes that reflected the participants' views of the Prenatal EHC for prenatal care use. Finally, the data were compiled into three main themes

describing enhanced communication as it related to the research question. The use of an audit trail composed of methodological and analytical documentation (Sandelowski & Barroso, 2003) and validation with colleagues contributed to validity. Additionally, Burns' (1989) four standards for methodological congruence were achieved including rigor in documentation, ethical rigor, procedural rigor, and auditability.

Results

Demographics of Study Participants

The participants ranged in age from 18–34 years old and were mostly unemployed with incomes less than \$25,000–50,000. The majority of the sample was in their 20s, single, lived with family, and received Medicaid. More complete demographic characteristics of the sample are available in Table 1.

Prenatal EHCs: Easy to Use and Should be Used

The women in this study reported the Prenatal EHCs in the clinical setting were easy to use and should be used to improve communication with providers. The participants described the Prenatal EHC as a reasonable and understandable tool from which to gain their psychosocial history. They found the calendar was clear, comprehensible, and relatively simple to complete. As one participant simply stated, “It was understandable. It seemed straight for me. I like it.” Another woman echoed the ease of using the calendar, “I thought it [the Prenatal EHC] was pretty simple.”

Participants were able to complete the Prenatal EHC without difficulty and the majority of participants reported that they enjoyed completing the calendar. This was expressed by one participant, “Everything seemed pretty straightforward to me on this one.” The simple terminology and clear instructions, which are at a Flesch-Kincaid grade level of 4.4 *indicating* a fourth grade reading level, allowed the participants to use the calendar with ease (Kincaid, Fishburne, Robers, & Chissom, 1975).

Participants stated the Prenatal EHC is needed and should be used for prenatal psychosocial assessment and to improve patient-provider communication. One woman expressed the EHC “would help because we pretty much don’t have no communication.” Another woman stated, “I hope this whole thing will continue so people can talk to their doctors and be more aware of what’s going on.” Others believed the Prenatal EHC would provide an opportunity to address important history with their provider. For instance, after looking at her completed Prenatal EHC one participant reported, “I ain’t never asked, so I was like, that’s something I think I am gonna ask him when I come back.” While another participant expressed that reviewing the calendar with the provider, “would help because some people don’t know how to actually say what they want to know.”

Prenatal EHC: Communication Themes

Three main themes emerged related to how the Prenatal EHC enhanced communication by providing: “an opening” for disclosure; “an understanding with you;” and a way for providers to “know you, your life, and future plans.”

“An opening” for disclosure—The Prenatal EHC was viewed as a helpful way to begin communication. One participant explained:

It would be an opening. Sometimes, that is very much what a woman wants, a doctor to ask her because it could be things in the past, complications that she had with a pregnancy that they might not be aware of. Because a lot of women are

coming in to the clinic, and they want you to ask personal questions like that just to better educate the doctor about their past pregnancies.

The participants described the Prenatal EHC as a method to improve patient-provider communication in prenatal care. The calendar promoted enhanced communication by providing a visible record that allowed for thoughtful reflection and personal awareness. These sentiments are reflected by one woman:

I think that's good because a lot of people don't like to talk. And they can put it on paper and then they can see it from the paper and then ask the questions from the paper. Then maybe they'll relate more easily.

Additionally, the calendar opened up the channels of communication with the health care provider by providing insight into the life circumstances of the patient and presenting further topics for discussion.

An understanding with you—The participants perceived the Prenatal EHC could increase the provider's awareness of their unique background situation and facilitate mutual communication; creating a sense of unity between the provider and the patient. This could potentially assist providers to better understand their patients and in turn, elicit a more caring patient-centered approach when interacting with the patient. As one woman explained, "I feel that's very important because for one, you have to feel comfortable with whoever is examining you. You have to have that open communication with them so they have an understanding with you..."

The calendar facilitated improved communication by providing insight for the provider and visually displaying topics to further enhance the patient-provider discussion. The Prenatal EHC was seen as an important tool to accommodate the prenatal visit because of its ability to open communication between the patient and provider and due to its capacity to create a shared understanding between the patient and provider. The participants considered their lives and history an integral component of their prenatal visit when they were asked to complete the calendar prior to seeing their provider.

A way for providers to "know you, your life, and future plans"—The ability of the Prenatal EHC to convey the intricate delicacies of the participants' lives was seen as a positive and personal attribute of the Prenatal EHC. The participants wanted to share the personal details of their lives with their health care providers. The women expressed the sentiment that the calendar allowed their provider to know them better as a whole person including their life and history outside the clinic. One woman clearly described the personal value of the Prenatal EHC, "The doctor gets to know you before you start the visit." Another found that sharing personal details could be helpful, "I think it would be good for us, because she would be able to look at that, and you know, learn a lot about my history, what's been going on in my life."

The Prenatal EHC asks women to share personal life events. The participants valued this level of detail for its ability to improve their prenatal visit and their relationship with their health care provider. Some ambivalence, but overall appreciation of the calendar was noted by one woman when she stated, "It was kinda like personal, but it was worth asking the questions because overall it will better educate others about women and prenatal care." Additionally, the format of the calendar allowed women to share as much or as little as they desired at that time. This was evident in the varying level of detail between calendars. Some calendars had each box completed while others used one word or an arrow to indicate things were the same in that particular life domain.

The participants reported that they liked the level of detail attained in the calendar. They expressed appreciation that they were asked about their living situation and stressors as well as traditional prenatal questions such as medication and nutrition. The nature of the calendar allowed the women to relay pertinent health information as well as personal life circumstances that may impact their health and prenatal care. One participant shared, “I think it’s [calendar] good. The way you all have it, so you’re trying to have more details, so the way you did it, it’s good to me.”

Another participant found the comprehensive nature of the calendar allowed her to reflect back on her past and present pregnancies, “...keeping a good plan of your pregnancy, so you have another baby or you’re having problems, you know what you went through with your other kids.” The participants also found the comprehensive nature of the calendars captured the important aspects of their lives and pregnancy; information they wanted their health care providers to be aware of.

In addition, the Prenatal EHC presented an opportunity for the women to discuss their pre-pregnancy history and future plans with providers. The women noted prenatal care often focuses only on the pregnancy; but felt it is also important to talk about their personal history before they were pregnant and their future plans and needs. One participant reflected, “It [the calendar] would give the doctor more of an insight about my history as far as health care, and what I’ve been through before my pregnancy, and what I’m going through now, and my future plans.”

In summary, the participants viewed the Prenatal EHC as a valuable tool to improve the prenatal care visit and emphasized the important aspects of the women’s past, present, and future to help providers understand their personal life circumstances.

Prenatal EHC Data

The participants’ Prenatal EHC included pre-pregnancy and trimester history, and future plans. The Prenatal EHCs showed patterns of change in life events and behaviors, including worries, stressors, and risk behaviors. Data on the Prenatal EHC also highlighted participants’ health concerns, significant life events, and future goals. For instance, 20% of participants in this study consumed a fast food diet. This presented health concerns to them and an excellent opportunity for education from the health care provider. Additionally, 13.3% of the sample had pre-pregnancy risk behaviors like smoking, regular alcohol consumption, and drug use that warranted discussion and education during the pregnancy.

The Prenatal EHCs identified 40% of the sample was currently unemployed or not working, 10% of the sample faced discrimination, and 10% lived in an unsafe neighborhood. This data from the Prenatal EHC provides guidance to the health care provider on what the most pressing health care and referral issues are at the time of the visit. Finally, the Prenatal EHCs demonstrated 16.7% of participants desired to return to school for a professional degree in the future, with the majority of participants wishing to become a nurse. While in the clinic setting, being aware of this patient goal will allow the health care provider to foster and educate the patient to help them attain their future goals. Thus, the Prenatal EHC has the ability to identify single worries, stressors, and specific behaviors while also demonstrating patterns of change over time. Table 2 is an example of a completed Prenatal EHC with a compilation of data from multiple participants in order to retain confidentiality. This illustrates how the Prenatal EHC could be used to communicate with the patient about significant details of the patient’s life over the course of the pregnancy.

The Prenatal EHC offered the provider a visual representation of the patient’s life changes and significant events. On one calendar the woman wrote, “I lost my mother but still

blessed” during her third trimester. This entry would give the provider an opportunity to discuss significant life changes and stressors with the woman. In addition, it provides the health care provider the insight that this patient was using her spirituality to cope with this difficult life change. On another calendar, a patient wrote “I fell out with my mother” during the first trimester. This provides an example of a stressor and worry for this particular patient. By the second trimester the same participant recorded that “I moved in with my grandmother, so that is good.” Both examples reflect situations in which the patients are losing significant support systems that could impact their pregnancies which easily may have been overlooked during routine prenatal care. Thus, these examples identified by completing the Prenatal EHC could potentially guide health care providers in delivering more effective and patient-centered prenatal care.

Additionally, the use of Prenatal EHCs with the participants revealed this method enhanced disclosure of potentially sensitive psychosocial history. The EHCs illustrated areas of stressors and risk reduction that should be addressed during prenatal care visits. While one of the researchers was reviewing the Prenatal EHC with a participant she opened up about her history.

I was honest on all the questions. Except for that one that I was telling you about the idea... that idea of... I don't smoke or take any type of drugs, but I had smoked some marijuana one time before with my boyfriend, but I stopped that when I got pregnant.

The prenatal event history calendar also elicited small nuances that indicated patient worries that are important to consider in the clinical setting. Some individuals used all capitals or exclamation points to signify negative experiences or future plans for change. For instance, one participant wrote that she lived “ALONE!” And in the section asking about experiences with discrimination during her pregnancy a participant wrote, “Definitely” and about discrimination in the future she wrote “Hopefully NOT!” The healthcare provider can use these subtle cues to initiate conversation about sensitive topics and engage the patient in their prenatal care visit.

Discussion

Findings from this study indicate that the Prenatal EHC provided “an opening” for disclosure; “an understanding with you;” and a way for providers to “know you, your life, and future plans.” The use of this tool to enhance communication during prenatal care is significant because prior studies have shown that pregnant women report experiences of poor communication with their providers during prenatal care (Bennett, Switzer, Aguirre, Evans, & Barg, 2006; Moore, Ketner, Walsh, & Wagoner, 2004; Raine, Cartwright, Richens, Mahamed, & Smith, 2010). This highlights the importance of finding methods to improve patient-provider communication during prenatal care. Our study has shown that the Prenatal EHC may be one potentially effective and efficient tool to enhance patient-provider communication.

For instance, the health care provider can use the cues from the Prenatal EHC to initially engage the *woman* in conversation about *her* psychosocial history and other important topics like discrimination that are often missed during prenatal care. In this study, the Prenatal EHCs completed by the women were able to demonstrate patterns of change in the personal life events and behaviors of the pregnant women, *such as* worries, stressors, and risk behaviors. Thus, the Prenatal EHC has the potential to be an ideal tool to implement psychosocial screening of all women seeking prenatal care irrespective of race, ethnicity, education, or socioeconomic status (ACOG, 2006).

Furthermore, the Prenatal EHC records data on a trimester basis as recommended by ACOG (2006). This coincides with regular prenatal care visits, where the Prenatal EHC could be completed in the waiting room prior to the visit, and integrates topics recommended for prenatal psychological screening. *Our findings are* consistent with other studies demonstrating that patients' value when their health care providers focus on psychosocial issues (Bertakis, Roter, & Putnam, 1991; Handler, Raube, Kelly, & Giachello, 1996; Korenbrot, Wong, & Stewart, 2005). The inclusion of discussion about psychosocial issues can be viewed as an opening up of the communication in the visit *that* has been previously demonstrated to increase patient satisfaction with prenatal care (Handler, Rosenberg, Raube, & Lyons, 1998). The Prenatal EHC provides an avenue for patients to document pertinent psychosocial issues occurring in their lives, especially those related to health promotion and risk reduction *that* allows the provider to gain a better understanding of each individual patient.

Often when providing prenatal care, the focus is on the pregnancy and the immediate postpartum period; however, it is also important to identify potential long-term needs such as nutrition, support, and shelter. The Prenatal EHC includes categories that provide patients and providers an opportunity to discuss future plans. Handler, Rosenberg, Raube, and Lyons (1998) have previously demonstrated that patients, specifically those insured by Medicaid, value easy access and referral to ancillary services. The Prenatal EHC offers the health care provider the prospect of addressing these additional needs before problems arise. Furthermore, it facilitates identification for potential referrals such as social work or the Women, Infants, and Children program (WIC) that may be necessary to assist the patient with attaining required resources.

Overall, this study established that prenatal patients liked using the Prenatal EHC because they perceived it was an easy method to improve communication during the patient-provider interaction. The simple terminology and clear instructions of the Prenatal EHC, which are at a fourth grade reading level, allowed the participants to use the calendar without difficulty. Utilizing the framework provided in the Interaction Model of Client Health Behavior, the Prenatal EHC is an ideal tool to identify unique patient characteristics and to improve the dynamics during the patient-provider interaction; ultimately, allowing for tailoring of interventions, enhancing communication, and increasing patient satisfaction (Cox, 1982).

Limitations

Sampling bias is a limitation to this study because of the use of convenience sampling; therefore replication is warranted in a more diverse sample of patients. Due to the small sample size and descriptive nature of this study, additional testing for feasibility in clinical practice is needed to determine how the Prenatal EHC influences communication between the health care provider and the patient. In addition, the incidence of abuse in pregnancy can range from 1–20% (Gazmararian et al., 1996). This study did not capture any reported cases of abuse, this is most likely not from the lack of abuse in the study population but from the lack of direct questioning about interpersonal violence on the Prenatal EHC. Thus, *we* believe the inclusion of a violence box asking about current or past physical, emotional, financial, and sexual abuse may be warranted. This screening would allow health care providers to recognize those who need additional ancillary services such as social work and identify women at risk for mental health consequences such as post-traumatic stress disorder.

Conclusion

Lori, Yi, and Martyn (2011) noted that determinants of health disparities are often social and it is necessary to develop models of prenatal care harmonious with African-American

women's lives to facilitate patient-provider interactions. African-American women seeking prenatal care desire a health care provider that understands the context of their lives (Lori, Yi, & Martyn, 2011). The Prenatal EHCs were seen as tools to open up communication with the health care provider about the personal attributes of each patient. Thus, the Prenatal EHC provides a possible avenue for further discussion of sensitive issues within a population marked by health disparities and lower educational levels. The Prenatal EHC facilitated patient-provider communication during the prenatal visit by allowing the health care provider and the patient to "start on the same page."

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Table 1

Sample Characteristics (N=30)

Variable	n/%
Number of living children	
0	8 (26.7)
1	8 (26.7)
2	7 (23.3)
3 or more	7 (23.3)
Marital Status	
Single	25 (83.3)
Married	5 (16.7)
Living Situation	
Alone	7 (23.3)
With family	16 (53.3)
With significant other	3 (10.0)
Missing	4 (13.3)
Occupation	
Student ^a	4 (13.3)
Work full-time	9 (30.0)
Work part-time ^a	6 (20.0)
Unemployed	12 (40.0)
Education	
Some high school	6 (20.0)
High school graduate	7 (23.3)
Some college	3 (10.0)
College graduate	1 (3.3)
Missing	13 (43.3)
Household Income	
<\$10,000	10 (33.3)
\$10,000–\$24,999	12 (40.0)
\$25,000–\$50,000	4 (13.3)
Missing	4 (13.3)
Insurance	
Medicaid	27 (90.0)
Private	2 (6.7)
Missing	1 (3.3)

^aOne participant was both a student and worked part-time; percentages will total greater than 100

Table 2
Sample of a Prenatal Event History Calendar with a Compilation of Participant Data

	Before pregnancy	0-3 mo. Pregnant	3-6 mo. pregnant	6 mo. - Delivery	Future Plans
Living Arrangements Where do you stay and who stays with you?	In my apartment ALONE!	Mother, sister, niece	My partner and kids and I all live at home	Renting Family	New baby and a husband
Neighborhood Is your neighborhood safe? Do you have grocery stores, electricity, services, transportation?	No Way!	Not very safe	Yes, it's fairly safe	Yes	To move into a safer neighborhood
Employment Where do you work? What hours do you work? Is your job safe?	Fulltime student	McDonald 35-40 Safe	Don't work	Office 8-5, yes	Plans on getting job back
Environment Are you exposed to bad air, water, food, or other things in your home, work, school, or community?	No	No	No	No	No
Family & Relationships Who helps you? (Circle) Who do you help?	Aunts, grandmother, child's father	Uncle	Husband, daughter	My husband & mom	Friends and family
Significant Events What good things have happened to you? What bad things? Have you felt threatened?	New house	I fell out with my mother	I moved in with my grandmother so that was good (same participant from 0-3 mo.)	I lost my mother but still blessed	To be RN
Pregnancy History How do you feel about being pregnant? What worries you? What pregnancy problems do you have? Are you taking any medications?	Worried	Happy, will baby live, none, yes	Too much fluid around baby	Good May have high sugar	Wait until I'm married to conceive again, be healthier before that
Past Medical History Do you have any Illnesses? Injuries? Surgeries?	Healthy as a horse	Hypertension	None	C-section	Hopefully won't have to have any surgeries or illness
Routines What are your typical activities & responsibilities? Typical sleep/rest?	Taking care of my older son, good enough	Take boyfriend to work and babies to school	Rest	Walker. Late sleeper.	Continue to work
Nutrition What are your usual eating habits (fast food, milk, meats, fruits, vegetables, breads)? Do you take Vitamins/Calcium? Gained or lost wt.?	Fast food, fast food, more fast food	Fast food, vitamins, gained 21 pounds	Fruits, vegetables, milk	Eating everything Prenatal vitamins	Continue eat healthy Take vitamins Keep wt. stable
Risk Behaviors Do you smoke, use tobacco, alcohol, drugs, or have other risk behaviors?	Smoked occasionally	Quit	No	No	None

	Before pregnancy	0-3 mo. Pregnant	3-6 mo. pregnant	6 mo. - Delivery	Future Plans
Beliefs What are your religious and cultural beliefs?	To be patient	Baptist	Christian	In God	Become a baptized Jehovah Witness
Stressors What are your stressors (personal, family, work) and how do you handle them?	If there is nothing I can do about it then can't worry about it	Money matters Live one day at a time	Not having enough money	Personal, I just do the best that I can	Continue to pray
Discrimination Have you been treated unfairly because of your race or income?	Definitely	Absolutely	No	No	Hopefully not!