Childbirth Expectations and Sources of Information Among Low- and Moderate-Income Nulliparous Pregnant Women

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ABSTRACT

This article explores the childbirth expectations and sources of information of first-time mothers using a qualitative descriptive method. A purposive sample of low- to moderate-income nulliparous women ($N = 7$) from an urban area in Connecticut were interviewed in their third trimester of pregnancy. The themes that emerged touched on mode of birth, supportive resources, emotional and physical expectations, control, and health of the baby. No one participated in childbirth education classes, and instead cited mostly informal sources of information such as family, friends, the Internet, and television. In light of advanced technology and increased access to on-demand information, the results of this study should remind health-care providers to discuss childbirth expectations and the sources of information with patients.

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Forming expectations for major life events can help one prepare mentally or physically for the experience. Preparing for the birth of a child is no different. These expectations may result from information acquired from childbirth classes, books, television, the Internet, health-care providers, or family and friends' hearsay (Ayers & Pickering, 2001; Beaton & Gupton, 1990; Beebe & Humphreys, 2006; Gibbins & Thomson, 2001; Goodman, Mackey, & Tavakoli, 2004; Raines & Morgan, 2000). These sources can positively or negatively influence individual outlooks and previously held beliefs, such as the need

to have control, a fear of pain, or preferences regarding medical interventions (Baker, Choi, Henshaw, & Tree, 2005; Beaton & Gupton, 1990; Gibbins & Thomson, 2001; Green, Kitzinger, & Coupland, 1990; Low, Martin, Sampselle, Guthrie, & Oakley, 2003; Mozingo, Davis, Thomas, & Droppleman, 2002). Unfortunately, not all women check for the accuracy of information received when it comes from an informal source. This may lead to conflicting advice and uninformed childbirth expectations, which can be costly and harmful to the health of the mother and the baby.

The potential side effects of medical misinformation vary. During the prenatal period, for instance, an uninformed woman may make unnecessary visits to the clinic or hospital because of concern for something that is normal in pregnancy (e.g., Braxton-Hicks contractions or constipation). Similarly, a lack of information may cause her to forego treatment that is needed before or during her labor. The patient-provider relationship can also be damaged over a misunderstanding caused by patient misinformation. In addition, a clinically normal childbirth may be perceived as traumatic to the patient who does not have a realistic idea of what will occur. This may happen despite the birth of a healthy baby or adequate control of pain—as found in previous studies (Baker et al., 2005; Beebe & Humphreys, 2006; Mozingo et al., 2002).

When the actual experience does not match the expectations, the dissonance can leave a woman feeling upset, angry, confused, and even traumatized. In these cases, a psychologically negative birth experience may occur, causing short- and long-term consequences. These include difficulty with postpartum adjustment, inhibited bonding with the baby, damage to the woman's self-confidence as a mother, fear of future pregnancies, and an increased risk of postpartum depression and posttraumatic stress disorder (Baker et al., 2005; Low et al., 2003; Mozingo et al., 2002; Soet, Brack, & Dilorio, 2003; Tammentie, Paavilainen, Åstedt-Kurki, & Tarkka, 2004).

Existing research looking at the childbirth expectations of nulliparous women has typically focused on White, middle-class women who have received childbirth education. Many of these studies are older and have been done outside of the United States (Ayers & Pickering, 2001; Baker et al., 2005; Beaton & Gupton, 1990; Gibbins & Thomson, 2001; Goodman et al., 2004; Green et al., 1990; Hallgren, Kihlgren, Norberg, & Forslin, 1995; Proctor, 1998; Waldenström, 2003). Less has been written about the childbirth expectations of nulliparous women in the United States with low- to moderate-incomes. The purpose of this qualitative study was to discover the childbirth expectations

and the sources of information used by this selected demographic.

METHODS

The study protocol was reviewed and approved by the affiliated universities' institutional review boards. For this qualitative study, a phenomenological approach using individual, in-depth interviews was employed. This approach was chosen to improve our understanding of the context within which women in the desired demographic range prepared for the phenomenon—expected childbirth. Phenomenology has often been used in research related to childbirth expectations and experiences because it allows the researcher to better examine this unique and very personal experience (Beebe & Humphreys, 2006; Gibbins & Thomson, 2001; Mozingo et al., 2002; Ryding, Wijma, & Wijma, 2002). The philosophical underpinnings of previous researchers using this approach have varied; however, for this study, a Husserlian phenomenological approach was used to discover the “lived experiences” of the participants and the meanings behind them (Koch, 1995).

Women were recruited from a hospital-based, low-risk prenatal care clinic in New Haven, CT. Prenatal visits to this clinic consist solely of one-on-one sessions with a physician or midwife. Two methods were used to recruit women. First, flyers were posted in the clinic's waiting room and interested patients contacted the interviewer to arrange a time to meet. Second, one of the study members made herself available in the clinic 2 days a week, during which potential participants were told about the study by a clinic nurse and could meet with the researcher immediately following their appointment if interested.

Participants eligible for this study included all English-speaking nulliparous women between the ages of 18 and 35 years with healthy singleton pregnancies between 32 and 38 weeks' gestational age and a low to moderate family income (up to 120% of the area's median income, or \$89,880 for a family of four in New Haven County; Fannie Mae, 2008). Exclusion criteria were having a pregnancy identified as “high-risk” (i.e., preterm labor concerns, high blood pressure, or advanced maternal age) or a history of psychiatric problems. Nonprobability, purposive sampling was used to recruit eligible participants until saturation of data was achieved. All participants were compensated for their time with gift cards of a nominal amount to a local supermarket.

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Semistructured, face-to-face interviews were conducted, consisting of demographic background questions and 14 questions related to childbirth perceptions (Table 1). All interviews took place in a private room within the clinic. Prior to the interview, participants were informed that it would be audio-recorded, were given the opportunity to ask questions, and then provided written consent. During the interview, probes were used for elaboration and clarification. Questions allowed for flexibility and could be reordered as an individual interview progressed based on the participant's previous answers and to allow for spontaneity. All questions were asked in each of the interviews to ensure consistency. Pseudonyms were used throughout the interview and data analysis processes to ensure patient anonymity.

All interviews were audio-recorded, transcribed, and entered into Atlas.ti software version 5.6 (Atlas.ti; Scientific Software Development, 2004). Data analysis was done as interviews were performed for emerging themes to be identified and explored throughout the interview process. A team of two researchers analyzed data for this study using thematic analysis methods as described by Braun

and Clarke (2006). The primary researcher (DM) completed all interviews and served as the primary coder and a second researcher (SB) assisted only during the data analysis phase and served as a secondary coder. An initial code list was developed after the completion of three interviews. Both researchers reviewed, discussed, and documented patterns in the data and collaborated to identify initial codes. A hybrid coding model was used throughout the analysis process. The primary researcher initially coded each transcript and created new codes when data did not fit initial code categories. The second researcher reviewed the initial codes then discussed differences with the first researcher. Differences were resolved with actions to change codes or dual code text. During these discussions, the two researchers identified and adjusted themes and monitored the extent to which new themes were emerging. Once additional interviews were analyzed without the emergence of new themes, the researchers concluded that data saturation had been reached and participant recruitment was stopped. This resulted in a sample size that has been identified as appropriate for phenomenological studies (Morse, 1994). After reviewing final themes, the researchers collaborated to select quotes that best illustrated those themes.

Credibility was established throughout this study through the use of several techniques. First, bracketing was used by the researchers to decrease bias by way of purposely acknowledging self-interest and personal experience (Koch, 1995). For example, the primary researcher had not previously experienced childbirth herself and was an employee of the birthing unit where the women were expected to give birth. This was taken into consideration when analyzing the data and subjective thoughts were bracketed accordingly. The primary researcher also maintained a journal throughout the data collection and analysis process and documented all thoughts and conclusions related to the study. This journal served as an audit trail to document the progressive subjectivity of the analysis process and allowed for confirmation that final themes were grounded in the data, which were obtained from participants in this study. Second, member checks were conducted with participants at the conclusion of each interview. The interviewer briefly summarized emerging themes with the participant and asked for confirmation or clarification. Participants were also provided with opportunities to review their transcript for accuracy after it had been transcribed, however, few women

TABLE 1
Interview Guide

Warm-up:

1. How has your pregnancy been going so far?
2. Do you know if you're having a boy or a girl? Have you picked out names?
3. Are you around babies a lot already?

Transition:

4. Is being pregnant how you thought it would be?

Focus:

5. What do you think of giving birth?
 6. Is there anything you hope for?
 7. Do you have any concerns or fears?
 8. What do you think labor will be like?
 9. What do you think the baby being born will be like?
 10. Do you feel you're well-informed about what kinds of things will or might happen?
 11. How did you form your expectations of childbirth?
 12. Have you ever been present at another person's birth?
 13. Who do you expect to be with you when you go into labor? What do you expect them to do while they're with you?
 14. What do you think the role of the doctors or midwives will be? What do you think the role of the nurses will be?
 15. What about your role? What do you think your role as the patient will be?
 16. What do you think will be the most important to you during the whole process? The least important?
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took advantage of this opportunity. Third, the use of two researchers during the data analysis process provided opportunities for discussion and critical examination of emerging themes. Researchers challenged one another on thematic conclusions and monitored the extent to which selected quotes provided accurate depictions of those themes. Finally, when it was possible to do so, participant information was triangulated against information that was available from the center where the women were recruited. For example, the primary researcher discussed findings with the Women's Center providers to clarify ideas when appropriate.

RESULTS

In total, seven women who met the research criteria participated in the study. Most women were in their early 20s, the oldest being 31 years old (Table 2). Their gestations at recruitment were evenly spread between 32 and 38 weeks. Three women identified as African American, one as Jamaican, two as Hispanic, and one as Turkish. Most participants had some college education; however, none had a college degree. Participants reported a household size of two to seven persons with a household income ranging from \$24,000 to \$62,400 a year. None of the participants were attending or expected to attend childbirth education classes.

Results of the transcript analyses were broken down into two major themes: childbirth expectations

and sources of information. Within the first theme, five subthemes emerged: mode of birth, pain, supportive resources, emotions, and hope for a healthy baby.

Childbirth Expectations

Mode of birth. Even though one participant indicated that she would prefer cesarean surgery, all the participants expected a vaginal birth. For most, a vaginal birth was preferred and cesarean surgery was something to be avoided and even feared.

[S]he's already [head] down, if she decides to turn and um, they have to . . . I'm scared that I might have to get a c-section. My biggest scare is having a c-section. [. . .] Yeah, I just don't want to hear you have to get a c-section. That's the only thing I don't want to hear. I'll go a little crazy. (Tanya, 21 years old)

I expect a lot of pain, but at the same time I want to do a natural birth with no medication unless it is really unbearable. Don't want no c-section. (Kisha, 21 years old)

On the other hand, for two of the participants, the possibility of cesarean surgery did not seem so terrible. One stated that she would prefer surgery over pushing for a long time, and another spoke of similar thoughts.

At first, honestly, I always wanted to go straight into c-section. I didn't want to know anything about pushing. I'm like, you know what? That baby is gonna split me up. That was my first thought. I thought it was, you know, I always said I wouldn't want to push the baby out, but of course that's not up to me. You know? First option is pushing. [. . .] So I change my mind and I'm like, I'm going to try and do it natural now. (Chantel, 21 years old)

Pain. Pain was an expectation that came up repeatedly during the interviews and is seen in the previous two quotes in relation to mode of birth. The word "pain," or a variation of it, was mentioned by every participant at least once without prompting. Pain was associated with contractions more often than the birth of the baby, possibly because some of the participants had already experienced some Braxton-Hicks contractions. Still, pain related to pushing and the birth made some of them nervous, for instance, Chantel's worry the baby would "split [her] open,"

TABLE 2
Participant Characteristics (N = 7)

Variable	n
Age (years)	
20–23	5
25–31	2
Gestational age (weeks)	
32.0–35.6	3
36.0–38.0	4
Relationship status	
Married	2
Partnered (boyfriend)	5
Race/ethnicity	
African American	3
Hispanic	2
Jamaican	1
Turkish	1
Education	
Less than high school	1
High school graduate or equivalent	2
Some college	4

and Irem's expectation that "it will be very hard and very painful." However, other participants expected a productive type of pain that could be overcome.

[P]ushing her out is not on my concerned list. Yeah, I'm pretty sure I can push her out. Yeah, that's not really my concern at all. (Tanya)

Supportive resources. All the participants had a general sense of the roles of the doctors or midwives, nurses, and their support people. Most believed that the doctor/midwife is in charge and what he or she says goes. Few had an idea of the close and personal role their labor and delivery nurse would have. Nonetheless, a few could picture the scenario in the delivery room.

It is a stressful situation when you have, you know, a female yelling "I'm in pain!" and you know, so I mean they'll probably try to help with calming me down and trying to let me know what to do, trying to guide me through it as the doctor tries to do his part also, you know? It's all basically a team effort from my family to the doctors, you know, they all kinda gotta work together. (Sofia, 20 years old)

For most of the women, however, the descriptions of what the doctors/midwives and nurses would be doing were simplistic and in some ways could be attributed to a doctor/midwife or nurse in any hospital unit.

[M]aking sure that I'm calm and comfortable I think. (Maria, 23 years old)

Just to make sure I'm ok, that I'm comfortable. Just coming in and checking on me, checking to make sure the baby's good. Checking the contractions. (Tanya)

Besides clinical support, all participants anticipated having their partners with them plus an additional support person or two, such as female family members and friends. No participants expected male supporters besides the baby's father to be present. Most were not sure of what specific roles their partners and family would have, and described their parts in general terms, considering their presence as mostly moral support.

Emotions. When asked about what types of feelings they might experience during the birth of

the baby, all participants anticipated emotions of joy and happiness. For instance, one participant had a neutral countenance during most of her interview, but lit up when describing how she thought she would feel during the birth of her daughter and her first seconds of motherhood.

I think just waiting for the baby I'll be so happy cause, like, that came from me. It's like, that was growing inside of me, you know? [...] I'll probably cry over how happy I'll be. I just think that'll be the best thing to see the baby and it's like, know that it's ok [sic]. (Chantel)

Others expressed an eagerness to finally meet their baby.

Most important [to me] is holding her, seeing her for the first time. I'm just saying that's what the past four months, like, oh my god, I can't wait til you get here so I can hold you. That's what I'm waiting for, to hold her. (Tanya)

I think it'll be exciting after waiting so long, feeling the movements and the kicking and stuff like that; it'll be exciting to finally meet this little person. (Maria)

Control. A very subtle theme among some women involved tacit control of their labor and birth. The word "control" was never used by any of the participants. However, their desire to be in charge of their circumstances can be inferred from some of their responses.

[W]hen I have contractions I have an attitude. I don't want nobody to touch me, nobody to bother me. Just leave me alone, just let me be by myself, and just let me do it. (Tanya)

Sometimes you go into labor for long, and they think we should just go in for a c-section. People try to convince you, [and] I know my husband is there and the pain I go through, he might say "let them do this," but I just don't want to. (Faith, 25 years old)

Faith had been a midwifery student in Ghana 5 years earlier and had some first-hand experience with

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childbirth. During her interview, she spoke with certainty and confidence about what she preferred that helped elucidate an appreciation of how her culture and experience as a student influenced her beliefs: “Yes, a natural delivery. That’s what we practice in Africa. It’s good. You feel great, you do something good, you feel, you know, it’s good for the baby and it’s good for you, too.”

On the other hand, Chantel described her desire for her partner to focus on keeping her calm during labor and “let the doctors do what they’re doing.” When asked to elaborate this idea, she explained that questioning the actions of the providers or nursing staff too much might increase her stress. It was her belief that “[going] with the flow” would help reduce her anxiety in an already demanding situation.

Healthy baby. All the women expected or at least hoped for a healthy baby, a reasonable expectation considering their good health to date. Nonetheless, although having a healthy baby was anticipated, most expressed cautious optimism.

I just really hope that everything goes fine, that nothing happens to me or the baby, you know? Comes out healthy and whatever difficulties it has then I hope they’re not severe. I mean, I hope for the best. That’s all you can do is hope. (Chantel)

It was also understood to a degree that the health and well-being of the baby could take precedence over the desire to have a vaginal birth in certain situations.

If I come out with, God forbid, any little thing, you know, I’m an adult, I could go through it. At least the baby, its immune system is a lot more weaker, so I would prefer, my first priority would be the baby. (Sofia)

Forming Expectations

The second major theme involved how the women’s childbirth expectations were formed. Many were able to list multiple sources of information, including written material, friends, family, the Internet, and reality television shows about childbirth such as *Bringing Home Baby* and *A Baby Story*. Five of the seven women acknowledged that they watched these reality shows on a weekly basis. Three mentioned their doctor or midwife as a

source of information and none were enrolled in formal childbirth education classes. Nonetheless, all seven women felt they were well-informed of the things that would and could happen during childbirth.

I always go on the Internet, I signed up for all those pregnancy weekly kind of things, and I [sic] always constantly reading my book and everything, and to see about stuff that can happen. (Kisha)

*I’ve got a lot of people in my ears telling me what’s gonna happen or what to expect. And I mean, I watch TV all the time, the show *Bringing Home Baby*.* (Chantel)

Reliance on potentially inaccurate sources of information such as the Internet, TV, family, and friends was shown to have some benefits. One participant understood from TV that labor and birth did not always go as planned.

*Well, I guess from what I’ve seen, cause I watch *Discovery* and um, about childbirth and everything, and I’ve seen how some women have had difficulties and they end up having to do cesarean because they couldn’t push, and um, others that come out with the umbilical cord wrapped around. You know, it’s a critical . . . moment at that time, so you never know what could happen.* (Maria)

On the other hand, rumors from friends and family can do damage if they are not corroborated by health-care providers.

You know, you hear a lot of negative things about epidurals. It helps the pain, but if you move a certain way you can get paralyzed. [. . .] I doubt I’ll get an epidural after hearing all that. (Tanya)

The infamous “they” (made up of family, friends, acquaintances, and other sources) was the source in many of the participants’ descriptions of what they heard about pregnancy and childbirth. Many women began answers with “Well, they say that . . .” but admitted they never stopped to clarify if what they said was true.

Not enrolling in childbirth classes did not appear to be a disinterest in learning more about childbirth. All the women shared their sources confidently despite having unconfirmed or vague information on

certain topics. One participant summed it up best when she explained:

I haven't taken any classes. I thought of a couple, but I mean, as I was going through, I was like, well, they could help you, and this is my point of view, they could help you as much as they can, but it's like they say, every pregnancy is different. [...] [The instructor] might not have a kid, so they might not know what to go through. I mean, they've done studies on it and stuff, but what better way than your own mom that went through it, your flesh and blood, you know? [...] So I don't think, you know all those classes are really necessary. I mean, they could help, but I feel like with everybody around me I think I got enough help. (Sofia)

Like the rest of the women, she made a conscious decision to not enroll in childbirth classes. Although cost and time may have played a role in their decisions, with the wealth of information available from multiple sources, adding another source did not seem necessary.

DISCUSSION

Women attending this hospital-based, urban clinic share similar expectations with participants of differing demographics in previous studies. Their expectations are based on information from a mix of authoritative and anecdotal sources and do not include formal childbirth education classes.

Participant Expectations

The study participants gave the impression that they felt well-informed regarding their upcoming labor and birth despite some uncertainty regarding expectations for specific events in the delivery room. Their expectations were largely practical. Most mentioned “every pregnancy is different,” making it apparent that they were aware the stories from friends and dramatizations on television might not apply to them.

In comparing the themes found in previous studies to the themes discovered during the analysis of the interviews, it is evident that childbirth expectations are consistent across demographics and settings. Experiencing physical pain was a theme present in previous studies on childbirth education, expectations, and/or experiences. More specifically, the women in this study described labor pain as a productive, empowering type of pain, similar to the

descriptions by women in other studies (Green et al., 1990; Low et al., 2003). Less evident, however, was their awareness of pain management options. This is similar to the findings of Green et al. (1990) in which knowledge of drug options and drug-free pain control was better among women with a higher level of education.

Another major theme was expecting support people such as their partner and close female friends or family to help them cope with labor. The women in this study were less sure of the exact role these support people would play during the event, which was common in other studies. Gibbins and Thomson (2001) found that a general expectation that loved ones would help them cope with labor was later remembered fondly as encouragement, reassurance, and advocacy when the patient was unable to speak for herself. This was also the experience with labor and delivery nurses, who serve as a great source of physical, emotional, and informational support in addition to the technical role that is expected (Tumblin & Simkin, 2001).

One theme that was present in much of the literature and evident among only two of the women in this study was control. Typically, this concept encompasses a woman's personal feeling of control over her mind, body, and the actions surrounding her labor and birth. The participant who showed the greatest desire for control over her childbirth was Faith, who was also the only woman with prior childbirth education, having been a midwife student while living in Ghana. Among the others, the idea of control was not mentioned and, in fact, a sense of deference to the health-care provider's decisions can be inferred from their answers (e.g., “let the doctors do what they're doing,” and when discussing an elective cesarean surgery, “that's not up to me”).

In the literature, a loss of control has been linked with feelings of dissatisfaction, anger, and trauma demonstrated in previous studies (Baker et al., 2005; Fair & Morrison, 2012; Soet et al., 2003). However, a recent qualitative study has found that for some women, control is not always self-determination and the feeling of being “in control” but is considered in terms of confidence in their care and trust in their providers, other domains associated with a positive birth experience (Namey & Lyerly, 2010). Therefore, the absence of the term in the traditional sense does not imply the absence of the idea for all the women in this study.

Sources of Childbirth Information

With increased access to advanced technology among most Americans, it is not surprising that many of the participants mentioned the Internet as a source of childbirth information. A 2009 survey by the U.S. Census Bureau shows that 76.7% of Americans have Internet access from some location, although this number is lower for African American and Hispanic citizens (68.1% and 63.9%, respectively; U.S. Census Bureau, 2009). In addition, a recent study found that almost 60% of Americans used the Internet to look up health information for themselves or a close relative (Atkinson, Saperstein, & Pleis, 2009). Among minority groups specifically, African American and Hispanics accessing online health information had a significantly higher rate of reporting that it helped them to better understand their condition when compared to Whites (OR = 1.79, 95% CI: 1.31, 2.44 and OR = 1.89, 95% CI: 1.32, 2.71, respectively; Rooks, Wiltshire, Elder, BeLue, & Gary, 2011). Regarding pregnancy-related information, Lagan, Sinclair, and Kernohan (2010) discovered that online information-seeking allowed pregnant women to clarify information received from their provider and aided in their decision-making process. It is important to acknowledge this benefit of Internet use during pregnancy, especially if the websites accessed provide quality information (e.g., government-run sites or those associated with medical schools).

Another debated source of information is television. Most of the participants acknowledged watching reality childbirth television shows both for entertainment purposes and as a source of information. Although these shows may dramatize the event to maintain viewership, they may offer some benefits. In an analysis of 85-hr long episodes of *A Baby Story* and *Birth Day* from 2007, it was found that the episodes showed various medical interventions that can occur in a hospital setting (Morris & McInerney, 2010). For example, 40.0% of the births included the use of oxytocin, 82.0% showed continuous electronic fetal monitoring, and 35.8% of births were cesarean surgeries—all statistics that are close to

the rates in U.S. hospitals (Declercq, Sakala, Corry, & Applebaum, 2007; Morris & McInerney, 2010). In addition, procedures such as artificial rupture of membranes, vaginal birth after cesarean (VBAC), emergency cesarean surgeries, and low-intervention home births were also depicted. The variety of scenarios these shows offer may help build perspective in their pregnant viewers, as they seem to have done with some of the study participants who noted that “every pregnancy is different.” Nonetheless, patients should be advised to corroborate the information they gain from this source.

It is notable that none of the seven participants attended childbirth education classes despite knowing that they were available. Although cost of the classes may have been a factor, their nonattendance mimics a recent trend that may have been brought on by access to alternative sources of information. Childbirth education attendance has dropped in recent years (Declercq et al., 2007; DeVries & DeVries, 2007; Lothian, 2003). In addition, only 10% of the participants in a recent study rated childbirth classes as the most important source of information, following books (33%), friends and family (19%), doctors/midwives (18%), and the Internet (16%) (Declercq et al., 2007). Except for the additional presence of television as a source, the women in this study appeared to value their sources similarly.

Currently, there is a debate among health-care providers and childbirth educators whether the decrease in childbirth education attendance is a dangerous trend or simply a trend that can be attributed to altered information sources, changing times, and varying public appeal (DeVries & DeVries, 2007). Childbirth classes developed during the 1960s with a general purpose of reducing morbidity, mortality, and discomfort. Over time, these goals grew to include childbirth preparedness, informed decision making, pain management information, and preparation for the hospital experience (Koehn, 2008). However, our culture may be reaching a point where childbirth classes are becoming obsolete. The current population of childbearing women in the United States has much more exposure to reliable, on-demand birth-related information than ever before, with socioeconomic boundaries being broken as access to the Internet and mass media expands (Morton & Hsu, 2007). The diversity of childbearing women in the United States has also increased and includes a wider range of demographic characteristics and medical risks, making childbirth classes in their traditional

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format marketable to only a fraction of the population (DeVries & DeVries, 2007). Nonetheless, there is evidence that childbirth education can increase feelings of confidence and personal control in a woman's childbirth expectations, especially in first-time mothers (Koehn, 2008). This may explain the lack of the control theme among most women in this study except for the one with previous experience as a midwifery student. It can also be argued, however, that the decision to not attend childbirth classes is a manifestation of control over the experience as well.

There are some limitations of this study. First, the sample size is small, owing to the intention of recruiting women with specific demographic characteristics. Second, because this study is based on naturalistic inquiry, the information discovered to answer the research questions are contextual and therefore preclude generalizability of the results (Erlandson, Harris, Skipper, & Allen, 1993). Restricting the study only to in-depth interviews may have also limited the research because of lack of triangulation. The exclusion criteria may have affected transferability, especially outside of the chosen demographics. However, the study also includes descriptions of participants and the research setting so that readers can assess the transferability of the results for health-care providers who service similar groups of women.

Implications for Practice

The women in this study share similar expectations with participants of differing demographics in previous studies. They have various sources they used to form their expectations that does not include formal childbirth education. This variation includes some objective but mostly subjective sources, such as the unique experiences of family and friends. Despite the acknowledgment that "every pregnancy is different," pulling from mostly subjective sources can influence their expectations and, possibly, their satisfaction with the ultimate experience differently than women who also attend childbirth classes. Suitable preparation for the experience and all its possibilities may be the key to ensuring that mothers have expectations that will contribute to a satisfying experience. Health-care providers should take time to discuss these expectations to ensure their appropriateness and realism. In addition, providers should be aware of the supplementary sources of information their patients use, especially if they are not attending childbirth education, and offer validated resources when necessary.

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REFERENCES

- Atkinson, N. L., Saperstein, S. L., & Pleis, J. (2009). Using the internet for health-related activities: Findings from a national probability sample. *Journal of Medical Internet Research, 11*(1), e4.
- Atlas.ti (Version 5.6) [Computer Software]. (2004). Berlin, Germany: Scientific Software Development GmbH.
- Ayers, S., & Pickering, A. D. (2001). Do women get post-traumatic stress disorder as a result of childbirth? A prospective study of incidence. *Birth, 28*(2), 111–118.
- Baker, S. R., Choi, P. Y. L., Henshaw, C. A., & Tree, J. (2005). 'I felt as though I'd been in jail': Women's experiences of maternity care during labour, delivery, and the immediate postpartum. *Feminism & Psychology, 15*(3), 315–342.
- Beaton, J., & Gupton, A. (1990). Childbirth expectations: A qualitative analysis. *Midwifery, 6*(3), 133–139.
- Beebe, K. R., & Humphreys, J. (2006). Expectations, perceptions, and management of labor in nulliparas prior to hospitalization. *Journal of Midwifery and Women's Health, 51*(5), 347–353.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101.
- Declercq, E. R., Sakala, C., Corry, M. P., & Applebaum, S. (2007). Listening to mothers II: Report of the second national U.S. survey of women's childbearing experiences. *The Journal of Perinatal Education, 16*(4), 9–14.
- DeVries, C. A., & DeVries, R. G. (2007). Childbirth education in the 21st century: An immodest proposal. *The Journal of Perinatal Education, 16*(4), 38–48.
- Erlandson, D. A., Harris, E. L., Skipper, B. L., & Allen, S. D. (Eds.). (1993). Quality criteria for a naturalistic inquiry. *Doing naturalistic inquiry: A guide to methods* (pp. 131–162). Newbury Park, CA: Sage.
- Fair, C. D., & Morrison, T. E. (2012). The relationship between prenatal control, expectations, experienced control, and birth satisfaction among primiparous women. *Midwifery, 28*(1), 39–44.
- Fannie Mae. 2008 HUD area median incomes for New Haven County, CT. Retrieved from <https://www.efanniemae.com/sf/refmaterials/hudmedinc/>
- Gibbins, J., & Thomson, A. M. (2001). Women's expectations and experiences of childbirth. *Midwifery, 17*(4), 302–313.
- Goodman, P., Mackey, M. C., & Tavakoli, A. S. (2004). Factors related to childbirth satisfaction. *Journal of Advanced Nursing, 46*(2), 212–219.
- Green, J. M., Kitzinger, J. V., & Coupland, V. A. (1990). Stereotypes of childbearing women: A look at some evidence. *Midwifery, 6*(3), 125–132.
- Hallgren, A., Kihlgren, M., Norberg, A., & Forslin, L. (1995). Women's perceptions of childbirth and childbirth education before and after education and birth. *Midwifery, 11*(3), 130–7.

- Koch, T. (1995). Interpretive approaches in nursing research: The influence of Husserl and Heidegger. *Journal of Advanced Nursing*, 21(5), 827–836.
- Koehn, M. L. (2008). Contemporary women's perceptions of childbirth education. *The Journal of Perinatal Education*, 17(1), 11–18.
- Lagan, B. M., Sinclair, M., & Kernohan, W. G. (2010). Internet use in pregnancy informs women's decision making: A web-based survey. *Birth*, 37(2), 106–115.
- Lothian, J. A. (2003). Listening to mothers: The first national U.S. survey of women's childbearing experiences. *The Journal of Perinatal Education*, 12(1), vi–viii.
- Low, K. L., Martin, K., Sampsel, C., Guthrie, B., & Oakley, D. (2003). Adolescents' experiences of childbirth: Contrasts with adults. *Journal of Midwifery and Women's Health*, 48(3), 192–198.
- Morris, T., & McInerney, K. (2010). Media representations of pregnancy and childbirth: An analysis of reality television programs in the United States. *Birth*, 37(2), 134–140.
- Morse, J. M. (1994). Designing funded qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 220–235). Thousand Oaks, CA: Sage.
- Morton, C. H., & Hsu, C. (2007). Contemporary dilemmas in American childbirth education: Findings from a comparative ethnographic study. *The Journal of Perinatal Education*, 16(4), 25–37.
- Mozingo, J. N., Davis, M. W., Thomas, S. P., & Droppleman, P. G. (2002). 'I felt violated': Women's experience of childbirth-associated anger. *The American Journal of Maternal/Child Nursing*, 27(6), 342–348.
- Namey, E. E., & Lyerly, A. D. (2010). The meaning of "control" for childbearing women in the U.S. *Social Science & Medicine*, 71, 769–776.
- Proctor, S. (1998). What determines quality in maternity care? Comparing the perceptions of childbearing women and midwives. *Birth*, 25(2), 85–93.
- Raines, D. A., & Morgan, Z. (2000). Culturally sensitive care during childbirth. *Applied Nursing Research*, 13(4), 167–172.
- Rooks, R. N., Wiltshire, J. C., Elder, K., BeLue, R., & Gary, L. C. (2011). Health information seeking and use outside of the medical encounter: Is it associated with race and ethnicity? *Social Science & Medicine*, 74, 176–184.
- Ryding, E. L., Wijma, K., & Wijma, B. (2002). Experiences of emergency cesarean section: A phenomenological study of 53 women. *Birth*, 25(4), 246–251.
- Soet, J. E., Brack, G. A., & Dilorio, C. (2003). Prevalence and predictors of women's experience of psychological trauma during childbirth. *Birth*, 30(1), 36–46.
- Tammentie, T., Paavilainen, E., Åstedt-Kurki, P., & Tarkka, M. (2004). Family dynamics of postnatally depressed mothers: Discrepancy between expectations and reality. *Journal of Clinical Nursing*, 13(1), 65–74.
- Tumblin, A., & Simkin, P. (2001). Pregnant women's perceptions of their nurse's role during labor and delivery. *Birth*, 28(1), 52–56.
- U.S. Census Bureau. (2009). Computer and Internet use in the United States: October 2009. Retrieved from <http://www.census.gov/hhes/computer/publications/2009.html>
- Waldenström, U. (2003). Women's memory of childbirth at two months and one year after the birth. *Birth*, 30(4), 248–254.

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