How Do Pregnancy and Birth Experiences Influence Planned Place of Birth in Future Pregnancies? Findings from a Longitudinal, Narrative Study

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ABSTRACT: Background: A perception that first birth is more risky than subsequent births has led to women planning births in obstetric units (OU) and to care providers supporting these choices. This study explored the influence of pregnancy and birth experiences on women’s intended place of birth in current and future pregnancies. Methods: Prospective, longitudinal narrative interviews (n = 122) were conducted with 41 women in three English National Health Service sites. During postnatal interviews, women reflected on their recent births and discussed where they might plan to give birth in a future pregnancy. Longitudinal narrative analysis methods were used to explore these data. Results: Women’s experience of care in their eventual place of birth had more influence on decisions about the (hypothetical) next pregnancy than planned place of birth during pregnancy did. Women with complex pregnancies usually planned hospital (OU) births, but healthy women with straightforward pregnancies also chose an OU and would often plan the same for the future, particularly if they experienced giving birth in an OU setting during recent births. Discussion: The experience of giving birth in a hospital OU reinforced women’s perceptions that birth is risky and uncertain, and that hospital OUs are best equipped to keep women and babies safe. The assumption that women will opt for lower acuity settings for second or subsequent births was not supported by these data, which may mean that multiparous women who best fit criteria for non-OU births are reluctant to plan births in these settings. This highlights the importance of providing balanced information about risks and benefits of different birth settings to all women during pregnancy. (BIRTH 2015)

Key words: hospital birth, narrative research, out-of-hospital birth, risk

Alternatives to birth in hospital obstetric units (OUs) are available in many countries, but the opportunity to access these services varies widely (1). Since the 1990s, midwifery units based in hospitals (“Alongside Midwifery Units” or AMUs), have been available in the United Kingdom, Denmark, Sweden, Ireland, New Zealand, United States, and Australia (2–4). Birth centers situated away from tertiary hospitals (“Freestanding...
Midwifery Units” or FMUs) are found in the United Kingdom (2), Denmark (5), Canada (6), and other countries. Although practices and admission criteria vary, there is good evidence that non-OU services provide safe care and reduce interventions (3,5,7,8). An important and neglected benefit of non-OU birth is the positive effect on future births; after straightforward vaginal births, women can plan future births in a non-OU setting, having avoided surgical birth and other obstetric complications.

Planned place of birth is influenced by understanding birth risk and safety, culturally normative expectations, faith, past birth experiences, and peer, family, and clinician views (9–16). In an earlier paper (17), we argued that women face constraints in deciding where to give birth, particularly when giving birth in hospital OUs is positioned as safer for women and babies. In this paper, we report follow-up data from the same study and explore the likely effects of one birth on planned place of birth in subsequent pregnancies.

This question is important because, despite the known advantages of non-OU births, such services are underused, and not always reliably available (2,18,19). Since publication of the Birthplace in England cohort study (7), which identified an increase in adverse perinatal outcomes when nulliporous women planned home birth, a key question facing United Kingdom service providers is whether home birth is safe for nulliparous women and their babies. First labors have historically been considered riskier than second or subsequent births (20–22); there is often an assumption that first births ought to take place in hospital OUs, and that second or subsequent births might then be safely planned in non-OU settings (AMU, FMU, or home).

Yet the expectation that women’s birth place preferences will change in subsequent pregnancies is based on scant evidence. Zadoroznyj reported that some women intended to change the provider or hospital after the first birth (reflecting Australian public/private maternity care provision), rather than opting for a different birth setting per se (23). To date, this is the only research to specifically address women’s intentions for future births after an initial birth experience, and so this question was addressed in our study. We investigated current and future birth intentions among nulliparous and multiparous women using a narrative method, which afforded a rare opportunity to gather rich data contextualized to women’s individual experiences (24,25), and to observe and document changes in planned place of birth as these occurred, both during pregnancy and after reflection on the events of birth.

Almost all women in the United Kingdom (99.5%) use National Health Service (NHS) maternity services (26); few opt for private obstetrician and midwifery care. In 2009 to 2010, when these data were gathered, 87 percent of births in England took place in hospital OUs and 13 percent took place in non-OU settings (9% in AMUs, 2% in FMUs, and 2% at home) (27). English government policy has supported choice of place of birth for 20 years (24,25) and United Kingdom’s National Institute for Health and Care Excellence (NICE) recommends informed choice of place of birth (28).

Methods

This research explored the process of deciding where to give birth from the perspectives of pregnant women, and observed whether these decisions were subject to change either during pregnancy or after birth. Findings about women’s antenatal perceptions of birth risk and safety, together with a full account of the narrative method used, are published elsewhere (17). The current paper presents narrative data from follow-up interviews during the final month of pregnancy and after birth. Ethical approval for the study was granted by an NHS research ethics committee [09/H0808/45].

Research Design

The study used a prospective, longitudinal narrative design (24,25). At the beginning of all postnatal interviews, a “narrative eliciting” question (29) was used, inviting participants to discuss their recent birth experiences, and to explore whether their views or future birth place intentions had altered in the intervening period. Following the initial unguided narrative question, further questions were used to explore the narrative account in greater depth. The prospective design reduced recall bias and facilitated documentation of both change and consistency in perceptions or beliefs over time (25,29).

Sample and Setting

Forty-one women were recruited into the study from three NHS maternity services, two from the inner-city and one from a larger, semi-rural area. Each site provided birth place options other than the hospital OU (Site 1: OU and home birth, Site 2: OU, AMU, and home birth, and Site 3: OU, AMU, FMU, and home birth), which allowed us to compare women’s views and the different options available. We used a purposive sampling approach (30), aiming to include women with varying parity, clinical risk profiles, and sociodemographic attributes, which the literature suggested were influential in birth place decisions. In the follow-up interviews, we were particularly interested in
whether women’s recent birth experiences had shaped or altered their perceptions of different settings. Women were eligible to participate if they were aged above 16, had attended antenatal care in the first trimester, and had undergone clinical and social risk assessment by an NHS midwife. Most of the participants were recruited from antenatal clinics (by KC, researcher); five were recruited by way of interpreters. The recruitment ended when the sample had sufficient depth and diversity to allow comparisons from a range of perspectives to be made (31). There was no loss to follow-up and all interviews were conducted by the same researcher (KC), who is an experienced qualitative researcher with a clinical background in nursing and midwifery.

Data Collection

The study included three interviews, which were recorded and transcribed verbatim, except in a few cases where participants preferred not to be recorded and written notes were made instead (see Table 1). Interviewees were invited to choose pseudonyms and these are used in this paper.

Analysis

Data were entered into an NVivo database (version 8) (32) and examined using both thematic and structural narrative analyses (25). Here structural analysis is built on thematic analysis by exploring elements of individual accounts (such as ordering of events or use of language to highlight drama or tension) and examining how the speaker had constructed a given narrative. Each respondent’s consecutive interviews were treated as a single data set, and analysis included noting whether views and opinions were altered in response to advice received or events experienced. Interpretive validation (24) was checked through discussion with participants (member-checks) at consecutive interviews, and examining values and meanings with participants. Narrative themes such as stability in risk perceptions over time, and the influence of different birth environments on women’s experiences of birth, were also discussed within the research team and presented in peer settings to examine plausibility and resonance with existing literature and theory.

Results

The sample comprised 41 women with varied levels of education, employment, and relationship status (see Table 2). Thirty-three had low or intermediate risk factors, according to NICE Guidelines for Intrapartum Care (28). Women with intermediate risk factors require individual assessment in relation to planning place of birth, but intermediate risk factors are not in themselves indications for OU birth (28).

Planned and Actual Place of Birth

Women’s planned place of birth at 36–40 weeks and actual place of birth are shown in Table 3. Overall, nulliparous women planned birth in non-OU settings more often than multiparous women, but were less likely to achieve non-OU birth. The reasons for this varied; some women were referred to OU for induction of labor, others presented at AMUs in early labor but found that these were full, or were admitted to OU instead. Two nulliparous women who planned home birth were admitted to OU during labor, both with meconium-stained liquor. Multiparous women (n = 23), on the other hand, tended to plan and achieve OU birth.

Not surprisingly, women with complex pregnancies usually planned to give birth in OUs. The finding which requires further attention here is that around half of the women with low-risk pregnancies, including multiparous women who had previous vaginal births, would plan an OU birth in future. The narrative theme was one of consistency between actual (rather than planned) place of birth and future intentions. After birth, nulliparous women who had planned a non-OU birth but gave birth in the OU re-evaluated their antenatal expectations as having been naïve, or optimistic. This only became evident when women reflected on their births during postnatal interviews.

Postnatal Reflections: Nulliparous Women Who Gave Birth in OU

In antenatal interviews, nulliparous women often hoped to give birth “naturally” with minimum use of drugs or

<table>
<thead>
<tr>
<th>Table 1. Interview Schedule and Setting</th>
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<tbody>
<tr>
<td>Trimester</td>
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<tr>
<td>-----------</td>
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<tr>
<td>Antenatal interview 1</td>
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<tr>
<td>Antenatal interview 2</td>
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<td>Postnatal interview</td>
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Table 2. Sample Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Women <em>(n = 41)</em></th>
</tr>
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<tbody>
<tr>
<td>Age range</td>
<td>19–42</td>
</tr>
<tr>
<td>Parity</td>
<td></td>
</tr>
<tr>
<td>Nulliparous</td>
<td>18 (44%)</td>
</tr>
<tr>
<td>Multiparous</td>
<td>23 (55%)</td>
</tr>
<tr>
<td>NICE Pregnancy risk profilea</td>
<td></td>
</tr>
<tr>
<td>Low-risk pregnancy/obstetric history</td>
<td>28 (68%)</td>
</tr>
<tr>
<td>Individual assessment requiredb</td>
<td>5 (12%)</td>
</tr>
<tr>
<td>Complex pregnancy—birth in hospital OU recommended</td>
<td>8 (20%)</td>
</tr>
<tr>
<td>NS-SEC employment occupational categoriesc</td>
<td></td>
</tr>
<tr>
<td>Managerial</td>
<td>20</td>
</tr>
<tr>
<td>Intermediate (clerical/administrative)</td>
<td>4</td>
</tr>
<tr>
<td>Routine (e.g., sales work, services work or gardening)</td>
<td>3</td>
</tr>
<tr>
<td>Full time student</td>
<td>4</td>
</tr>
<tr>
<td>Not working</td>
<td>10</td>
</tr>
<tr>
<td>Maternal educationd</td>
<td></td>
</tr>
<tr>
<td>Completed schooling with no educational qualifications</td>
<td>4</td>
</tr>
<tr>
<td>Completed schooling at 16 with school-leaving certificate or equivalent</td>
<td>2</td>
</tr>
<tr>
<td>Completed schooling at 18 with university entry-level qualification or equivalent</td>
<td>7</td>
</tr>
<tr>
<td>Postschool vocational qualifications (e.g., further education diploma)</td>
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</tr>
<tr>
<td>Undergraduate or postgraduate degree</td>
<td>21</td>
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<tr>
<td>Ethnicity</td>
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<td>White British</td>
<td>23</td>
</tr>
<tr>
<td>White, other (includes European, Australian, American/Canadian)</td>
<td>9</td>
</tr>
<tr>
<td>Black or mixed white and black</td>
<td>5</td>
</tr>
<tr>
<td>Indian (originates in Indian subcontinent) or mixed white and Indian</td>
<td>2</td>
</tr>
<tr>
<td>Chinese or mixed white and Chinese/Asian</td>
<td>2</td>
</tr>
</tbody>
</table>

*aNational Institute for Health and Clinical Excellence (NICE) is the United Kingdom body which generates national clinical guidelines; the risk categories used here are detailed in the NICE guideline 55 “Intrapartum Care: Care of healthy women and their babies during childbirth” (28). bWomen with NICE intermediate risk factors require individual assessment in relation to planning place of birth, but intermediate risks factors are not in themselves indications for OU birth (28). cNational Statistical Socio-Economic Categories (46). dWomen in the sample had been educated in a range of countries, and held qualifications with different names, so these categories describe the highest level of education obtained by women at the time of inclusion in the study.

anesthesia. For example, Jane planned to have a water birth in AMU but was admitted to OU instead for induction of labor, where she had a forceps birth under epidural anesthesia. Following this birth, her expectations of labor were very different:

I think birth is riskier than I had anticipated. I had no idea that it would be so difficult to get my baby out! There is no way I would have been able to push her out myself, and I wouldn’t have been able to have carried on without any pain relief. (Jane, first baby, low-risk pregnancy)

Sarah also planned to have an AMU birth, and said in her first antenatal interview that if this birth was all “quite easy” then she might consider home birth in future. The AMU was full when she arrived, so she was admitted to the OU instead. She had a quick labor and a straightforward vaginal birth, but in her postnatal interview she felt she would no longer consider a home birth:

Is that what I said last time…? [Referring to antenatal interview] I think I’ve changed my mind. I would definitely go into hospital. I felt safe there. I think I’d be more stressed having it at home… I don’t think I would ever consider a home birth. Although they [staff] did talk about it, they were all saying, “You’re a great candidate for having a home birth and generally it was fine.” Um … I was, no. (Mm) I’m not going to … I don’t think I’m brave enough. (Sarah, first baby, low-risk pregnancy)

Alison had planned to give birth at home, but was admitted to OU during labor and had a vacuum extraction. In her postnatal interview, she questioned whether she had been “naïve” before the birth:

Was I naïve? I don’t think so. But I was quite … optimistic about birth, you know, … but yes, it was … altogether more unpleasant … it was worse than I thought. (Alison, first baby, low-risk pregnancy)

In these interviews, it was observed that women had become distanced from their earlier, more “optimistic” antenatal beliefs, and reappraised their birth expectations accordingly. Annette’s perspective also changed, but her rationale was slightly different. During pregnancy, Annette planned OU birth but had reservations about this decision; she felt she would “really” prefer a home birth:

I think I’d, in my heart … I’d prefer a home birth because it’s more personal … I don’t like hospitals, I find them quite impersonal, potentially quite intrusive. (Annette, first baby, low risk, antenatal interview data)

Annette had a straightforward labor and gave birth shortly after arrival at the hospital OU. Given her pre-birth interest in home birth, it seemed likely that she would be interested in a home birth in a future pregnancy, and although she did not rule this out, her positive birth experience led to her reframing her views of OU:

I felt that [in the OU] my wishes were respected, and my privacy was respected … The midwife who we had, you know,
we had a bond with her... Yeah, I'd recommend (hospital OU) to people rather than recommending the home birth that I wanted.

These reflections indicated that there are several routes by which experiencing hospital OU birth reinforced OU as the most appropriate setting for labor. Experiencing a difficult birth led women to revisit their beliefs and expectations about birthing, so that it became difficult to imagine “being able” to give birth without assistance. Even “straightforward” birth in OU meant that hospital OU became the preferred option for the future, partly because OU care was better than women had anticipated, but also because birth in OU led women to associate safe birth with the acute care environment. In these cases, nulliparous women who had given birth in hospital OU did not plan future births in non-OU settings; on the contrary, they predicted that OU was the most likely option in a hypothetical future labor. This is not to say that their decisions might not alter in the future, but the notion that women will naturally become less risk averse in second or subsequent births, even after straightforward vaginal births in OU settings, was not supported in these interviews.

Postnatal Reflections among Women Who Planned Birth at Home, or in FMU

Fewer women planned birth in nonhospital settings (FMU or home birth), even when these were available, appropriate, and recommended by staff. Our previous paper explored preference for nonhospital birth, and found this to be associated with a perception that birth was intrinsically safe, and that home or FMU environments support natural labor and birth (17).

Marilyn gave birth to her first baby in an FMU, and felt she was “the lucky one” compared to her peers, many of whom had instrumental or surgical births in hospital OU. After the birth, she said:

I would [go to the FMU in a future pregnancy] because of the treatment that we had there ... everyone was so good, both during and afterwards. (Marylin, first baby, low-risk pregnancy)

Holly planned a home birth for her second baby and gave birth at home as intended. When we discussed her future birth intentions, she felt she would plan a home birth again:

Interviewer: You suggested that if you had another baby you might think about a water birth again, so does that mean that you’ll probably go for a home birth in the future?

Holly: I think I would yeah. Unless there were any complications ... I think I probably would. (Holly, second baby, low-risk pregnancy)

After reflecting on these postnatal narratives, it seemed that women’s experience of care in the eventual place of birth was more important than the intention during pregnancy to give birth in a particular setting, and that this provided an underpinning logic to decisions in the (hypothetical) next pregnancy, too. In other words, if women achieved FMU or home birth, they seemed likely to plan this in future. Similarly, those who planned OU births (or AMU births so they would be close to OU), and went on to give birth in an OU, tended to plan the same in future, whether they had a complex or straightforward labor and birth. This was the case for most, but not all, women, and clearly many factors contributed to these preferences in addition to clinical risk profiles.

Discussion and Conclusion

This paper presents new evidence about the influence of birth experience on future birth place intentions, within a health system where choice of place of birth is embedded in policy, and where there were real options. Our findings challenge the notion that women will be more open to non-OU birth in future pregnancies, even after straightforward OU births. Nulliparous women reappraised their antenatal expectations as naïve or unrealistic following an OU birth; in postnatal interviews, these respondents described having set aside their hopes for a “natural” birth, instead preferring to opt for the apparent security...
that hospital OU could provide. These findings bring to mind Porter and Macintyre’s assertion that, in relation to maternity care, “what is, must be best,” meaning that women prefer whatever model of care they have experienced over hypothetical alternatives (33). Van Teijlingen et al raise an important methodological issue, arguing that data from posing hypothetical questions is hard to interpret because women have not normally experienced the “alternative” under discussion, and we acknowledge that this aspect is a limitation of our study (34).

As Dahlen et al observed, women experience first births as “novices reacting to the unknown” (35). In our study, none of the nulliparous women who considered birth to be risky during their pregnancies described birth as less risky than they had anticipated after the event, and several considered it to be more risky overall. However, Downe et al show that women giving birth in OUs are more likely to experience interventions such as augmentation or epidurals, and in our longitudinal interview data, OU birth experiences appeared to diminish women’s belief that “natural birth” was possible for them (36). This creates a difficult dilemma for maternity care providers; to help prevent disappointment and feelings of failure, nulliparous women need to receive realistic information about labor and birth (35), but providing this information may unintentionally perpetuate the idea that birth is risky and unpredictable, and that planned OU birth is the best option given the uncertainties that women face.

Existing research also shows that individuals’ birth risk perceptions do not always align well with clinical risk assessments (37). For good reason, much attention is paid to the conflicts that arise when women with notable risk factors plan to give birth at home or to “freebirth;” these instances are currently the subject of widespread debate in areas of North America, Europe, and Australia (38). The concern with these “risky choices” eclipses the far more widespread situation where healthy nulliparous women, and multiparous women with straightforward obstetric histories, plan to give birth in OU settings (7). This aspect might also be framed as a “risky choice,” because it is now well established that women with low-risk pregnancies who plan birth in OU settings have a higher likelihood of birth interventions, including a cesarean delivery, compared with similar women who plan non-OU births (39–41). Yet women with low-risk pregnancies often believe that OU is the safest setting overall, and plan OU births in the expectation that this is best for them and for their babies.

Although heightened perceptions of risk were sometimes evident during these interviews, it is important to acknowledge that not all women made decisions on the basis that birth is risky; as others have also found, women opting for birth at home or in FMUs felt that birth was safe, that their bodies could cope, and that if complications occurred, they could safely be transferred into hospital OU ([13,42,43], authors 2014). The longitudinal narrative approach used here revealed how risk perceptions could be reinforced by birth experiences, but our findings are exploratory and larger scale research is needed to examine the extent to which the observations described here pertain to a wider maternity care population. It would also be valuable to conduct qualitative studies with longer follow-up periods, to determine whether individual women’s postnatal perspectives altered over time, or in response to subsequent pregnancies. In addition, the ways in which birth is culturally and socially situated in different countries needs to be considered, as what women are offered in each region will affect what is considered usual care (44,45).

This study found that preference for planning OU birth endures after first birth in an OU, even when this birth is straightforward in clinical terms. Women are more open to birth in non-OU settings in first pregnancies, and first pregnancies may therefore provide a golden opportunity to support and promote planned birth in non-OU settings, particularly midwifery units. To facilitate broader uptake, these services need to be presented as “normal” or “usual” by clinical staff, and the benefits of birth in non-OU settings should be presented alongside other information such as likelihood of transfer.

Planned place of first birth also appears important; put simply, hospital birth begets hospital birth, and the setting of a first birth has implications for the outcome of that birth, and for the remainder of the woman’s childbearing career. While the Birthplace study (7) found increased adverse perinatal outcomes for planned first births at home, planned first births in midwifery units (freestanding and alongside) were as safe as planned OU births for babies. Given that intervention rates are lower and normal birth rates higher in all non-OU settings (20), it is in women’s best interests to offer alternative settings for birth unless OU birth is clinically indicated. If it is indeed the case that heightened risk perceptions lead some women to plan OU births, then these settings are likely to remain the preferred option for some, even after “normal,” uncomplicated births in first pregnancies. In addition to facilitating access to non-OU settings for first births, attention should shift toward understanding the reasons for high intervention rates for women who elect to give birth in OUs, and increasing support for normal birth in hospital OU settings.

Note

The research described here was undertaken while the Birthplace in England cohort study was being conducted; findings had not been published at the time of data collection.
References


