EXPERIENCE OF DECISION-MAKING FOR HOME BREECH BIRTH IN THE UNITED STATES: A MIXED METHODS STUDY

By

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A NOTE ON GENDERED LANGUAGE

This dissertation uses gender-inclusive language with the acknowledgement that pregnant and birthing persons have diverse gender identities. However, it is also important to recognize that many aspects of perinatal care are reflections of historic power dynamics based on binary gendered narratives and that being pregnant, giving birth, and becoming a mother are viewed by some women as fundamental aspects of their gender expression or identity. It is also true that research conducted on cisgender women cannot necessarily be generalized to a gender diverse population of childbearing persons. For these reasons, gendered language also appears, intentionally, in this work. Where gendered language was present in participants' quotes or descriptions of others' research, it was retained.

1 Introduction

1.1 Statement of problem

Breech presentation affects approximately 3–4% of all singleton, term pregnancies.[1,2] Mode of birth (i.e., vaginal or cesarean) has been shown to be a critical decision for many pregnant persons with long-lasting effects, yet very few are given a choice when it comes to mode of breech birth in the United States (US).[3-6] Nearly all term breech fetuses in the US are born via cesarean (95.2% in 2020, according to National Center for Health Statistics data), with most vaginal breech births being unintentional.[7-9] This trend towards cesarean is despite recent research that supports vaginal breech birth as a reasonable option for appropriately screened candidates, national recommendations advocating for inclusion of patient preferences in breech birth decision-making, and international efforts to reduce rates of cesarean due to associated maternal morbidity and mortality.[2-5,10-22] Irrespective of these efforts and widespread shifts in healthcare towards person-centered care and shared decision-making, deciding on intended mode of breech birth may be an area where pregnant individuals have limited opportunity for informed choice.

Numerous researchers and clinicians have noted that even when vaginal birth is desired, many pregnant individuals have difficulty obtaining care for planned vaginal breech birth in the US, especially within the hospital system.[5,23-28] However, breech birth in community (home or birth center) settings is associated with increased risk of serious neonatal morbidity and mortality.[29-38] Without access to care for vaginal breech birth within the hospital system, individuals may be placed in a situation where they are unable to exercise informed choice for their desired mode and site of birth. Pregnant persons who do not consent to planned cesarean birth may feel forced to seek care outside the hospital system to avoid unwanted (and potentially unnecessary) surgery. To date, there are no identified studies exploring the experience of decision-making for home breech birth within the US to support these concerns. This study was designed to answer the following research questions: (1) what was the experience of decision-making in individuals who transferred out of the hospital system in pursuit of home breech birth; and (2) how can this understanding improve perinatal care.

1.2 Purpose of the study and long-term goal

The purpose of this study was to explore the experience of decision-making in individuals who transferred care out of the hospital system to pursue home breech birth. Using a mixed methods approach, this study explored self-reported decision-making experiences through (1) a survey consisting of demographic information, an assessment of access and preference for mode and site of breech birth, quantitative measures of involvement in and satisfaction with decision-making, and open-ended qualitative questions; and (2) semi-structured interviews. Study findings contributed to an understanding of decision-making in this population and clinical recommendations designed to increase the provision of safe and respectful perinatal care and breech birth decision-making.

1.3 Specific aims and hypotheses

The objective of this mixed methods study was to generate theory with relevant clinical application regarding the experience of decision-making in individuals who transferred out of the hospital system to pursue home breech birth. Specifically, the study aims were:

- **Aim 1**: To explore the experience of decision-making surrounding transfer out of the hospital system to pursue home breech birth, including interactions with health care providers and institutions (*qualitative, interviews and open-ended survey responses*). Hypothesis: Individuals who transfer out of the hospital system to pursue a home breech birth will share common experiences, decision-making patterns, and underlying values, needs, preferences, emotions, and perceptions of risk that influence decision-making.
- **Aim 2**: To assess participants' preferences for mode and site of breech birth and their perceived access to supportive care for a planned vaginal breech birth (*mixed methods, quantitative and open-ended survey responses and qualitative interviews)*. Hypothesis: The majority of participants (> 90%) will report a preference for planned vaginal breech birth in the hospital system and a lack of access to supportive care for this preferred mode and site of birth.
- **Aim 3**: To describe the relationship of participants' involvement in decision-making and satisfaction with the decision to leave the hospital system (*quantitative, validated measures—Mother's Autonomy in Decision-Making [MADM] and Satisfaction with Decision [SWD])*. Hypothesis: A lack of involvement and autonomy in decision-making

will be inversely correlated with decisional satisfaction to leave the hospital system to pursue home breech birth.

This is the first known study to explore the experience of decision-making for breech birth within the US. Understanding this phenomenon from the perspective of those who left the hospital system to pursue home breech birth was used to guide the development of recommendations to increase informed choice and the provision of safe and respectful perinatal care. The long-term goal of this research is to improve the quality of perinatal care and associated health outcomes.

1.4 Significance of the problem

Cesarean became the recommended mode of breech birth for term breech fetuses in the US following publication of a large-scale, randomized controlled trial (termed the Term Breech Trial) in 2000, which found increased risk of perinatal and neonatal mortality and short-term serious neonatal morbidity with planned vaginal birth compared to cesarean.[39] Following the publication of this research, the American College of Obstetricians and Gynecologists (ACOG) issued a committee opinion recommending that all singleton term breech fetuses should be delivered via planned cesarean.[19] The Term Breech Trial has since been widely criticized,[12,13,25,40-44] and recent systematic reviews and metanalyses show that although planned vaginal breech birth does increase perinatal morbidity and mortality compared to planned cesarean, the absolute risk of these adverse outcomes is low, making vaginal breech birth a "reasonable"[45] option for appropriately screened candidates.[2,7,13,37] Recent research has called for greater attention to underlying fetal or antenatal conditions associated with persistent breech presentation to widen the focus on potential contributors to adverse perinatal outcomes that extend beyond mode of birth.[46] Debates about evidence-based screening and management guidelines for vaginal breech birth are ongoing, along with calls for additional research that accounts for greater granularity of the data including intentionality of vaginal birth and presence of a skilled breech provider.[34,37,46-50] Nevertheless, the Term Breech Trial and ensuing professional recommendations led to a decrease in support for vaginal breech and a loss of skilled and willing breech birth attendants—both of which continue to greatly limit access to supportive care for planned vaginal breech birth.[10,16,51,52]

In 2018, ACOG revised their committee opinion to include consideration of patient preferences into decision-making for mode of breech birth.[19] This recommendation is supported by evidence that having a role in perinatal care decision-making matters greatly to pregnant persons, especially for significant decisions such as intended mode of birth.[3,53,54] In qualitative research, involvement in decision-making has been found to be a key element in defining a "good birth."[55,56] Negative feelings about the experience of care and decision-making may be associated with adverse health outcomes, as individuals have reported that a lack of autonomy in childbirth-related decision-making led to decreased maternal self-efficacy, psychosocial distress, and alienation from the healthcare system.[4,57-63] The ability to exercise agency and have autonomy in decision-making related to pregnancy and birth are widely recognized as essential components of high quality perinatal care.[64,65]

Current national evidence-based guidelines in the US, United Kingdom, Canada, France, Australia, and New Zealand all support inclusion of patient preferences in decision-making for intended mode of birth and planned vaginal breech for appropriate candidates.[19,66-69] Professional health organizations such as the World Health Organization (WHO), ACOG, and Society for Maternal-Fetal Medicine have raised concerns over rising rates of cesarean birth and associated negative health outcomes.[21,22] Breech presentation is currently the primary indication for 17% of all primary cesareans in the US.[18,22,70] Supportive care for hospital vaginal breech birth, with appropriate selection and management criteria, has been offered as a reasonable option that would contribute to the global effort to reduce unnecessary cesareans and improve maternal health outcomes.[18,19] Regardless of this evidence and recent clinical practice recommendations, at present in the US, very few pregnant persons are given the opportunity to be involved in mode of breech birth decision-making, and planned vaginal breech birth remains extremely rare.[3,8,13,24]

This lack of access to supportive care for planned vaginal breech birth within the hospital system has led to reports of women feeling coerced, denied opportunity for informed choice, and placed at increased risk from either potentially unnecessary surgery or birth in a suboptimal care setting to avoid it.[24,29,71] When individuals are unable to find supportive care for vaginal breech birth within the hospital system, they may seek care outside of it, either with or without a skilled birth attendant.[29,30,72-74] Although planned community (home and birth center) births make-up only about 1 to 2% of all US births, rates of home births have been steadily climbing for nearly two decades, and numbers of home breech births are no exception to this trend.[73,75,76] Especially

during the COVID-19 pandemic, in which individuals sought to avoid hospital environments and COVID-related restrictions, reports of requests for homebirth care jumped substantially.[77,78] While available data are limited and imperfect and the overall numbers are quite small, the number of known, intended home breech births (among term, singleton pregnancies) rose 40% during the COVID-19 pandemic based on National Center for Health Statistics data (N=178, pre-pandemic in 2019; N=249 during the pandemic in 2020).[9] No reliable sources of data regarding the number of intended home breech births that required transfer to hospital were identified.

There are also limited data on outcomes associated with home birth in general. Evidence supports a significant increase in risk of neonatal morbidity and mortality compared to hospital births, although there is very low absolute risk across both settings.[32,37,79,80] Specific odds ratios (OR) and risk statistics differ widely across studies and comparison groups based on a large number of variables including integration of home birth into the health care system. Recently, a systematic review and metanalysis in the *Lancet* comparing perinatal or neonatal mortality in planned home birth to planned hospital birth in well-integrated systems reported an OR of 1.07 (95% Confidence Interval [CI], 0.70 to 1.65) for nulliparous women and 1.08 (95% CI, 0.84 to 1.38) for multiparous women.[81] A retrospective research study in the *New England Journal of Medicine*, not included in the previously cited metanalysis, used birth certificate data (of nonanomalous, term, singleton, cephalic [non-breech] births) in Oregon to compare outcomes based on intended site of birth and found that planned birth in a home or birth center setting was associated with an increased risk in perinatal death (3.9 vs. 1.8 deaths per 1000 births, adjusted OR 2.43, 95% CI, 1.37 to 4.30, p=.003) compared to planned hospital birth.[75] Specifically with regard to community breech births, a retrospective review of the 539 breech births (out of 47,394 total births) using Midwives Alliance of North America Statistics Project data on midwife-attended, planned community births (though notably, not necessarily a planned breech birth, nor one with a skilled breech attendant or a nonanomalous, term fetus) found that breech presentation was positively associated with perinatal morbidity and mortality, including 9 intrapartum or neonatal deaths (16.8/1000, adjusted OR 8.2, 95% CI, 3.7 to 18.4).[37]

Although ACOG acknowledges that every individual has the right to make an informed decision regarding intended site of birth, there is general consensus that vaginal breech birth, when appropriate, should occur in a hospital setting and be attended by skilled breech providers.[34,37,82] The National Academies of Sciences' (NAS) report on Birth Settings in America:

Outcomes, Quality, Access, and Choice (2020) recognizes that pregnant people have difficulty accessing care for planned vaginal breech birth in a hospital setting and recommends that offering such care in accordance with best available evidence would "help hospitals and hospital systems ensure that all pregnant people receive care that is respectful, appropriate for their condition, timely, and responsive to individual choices."[23, p.8-9] Specifically for vaginal breech birth, the NAS report states that hospitals have a "clear and urgent responsibility" to make such care available given evidence showing a hospital setting is associated with improved maternal and neonatal outcomes.[23,37] Current ACOG committee opinion considers breech presentation an "absolute contraindication" to planned home birth.[35,67,82] However, a lack of meaningful access to supportive vaginal breech birth in US hospitals at present conceivably makes home birth the only option for persons seeking to avoid surgical birth.[34,83] Even when skilled breech birth providers are willing to provide care for planned vaginal breech birth in hospitals, they may encounter extremely restrictive hospital policies, pressure to stop offering such care, or even institutional "breech birth bans" with threats of loss of privileges.[24,84,85]

It is important to acknowledge that giving birth is not simply a medical procedure, but a meaningful life event with psychological, cultural, emotional, and spiritual import and lasting effects for many birthing persons and their families.[86-89] In mode of birth decision-making, perinatal care providers tend to emphasize medical risk and physical health outcomes; however, childbearing individuals may perceive, prioritize, and tolerate risk differently than their care providers.[23,90-92] As the importance of person-centered care (which places the individual's needs, preferences, and values at its core in guiding clinical decisions) has gained widespread recognition, there are efforts to reframe evidence-based care to define a "good outcome" in terms of what is meaningful and valuable to the individual.[93,94] This includes a recognition of the value of the birth process (independent from outcomes) and the complex factors which contribute to wellbeing, including psychological, cultural, emotional, and spiritual safety and health.[87,95]

The WHO asserts that quality maternity care must include support for informed choice as a measure of the essential preservation of women's dignity.[65] This means ensuring that women are "supported in making decisions about all aspects of their care and treatment; [that] their personal values and beliefs are respected, and [that] their consent is obtained before procedures are carried out."[65, p.48] Respectful maternity care, according to United States Agency for International Development (USAID), necessarily includes regard for women's autonomy,

dignity, feelings, choices, and preferences.[96] USAID acknowledges that the goal of achieving "safe motherhood" extends beyond prevention of morbidity or mortality to encompass protection of women's autonomy and self-determination as basic human rights.[96] The importance of the experience of care, distinct from its associated outcomes, is echoed in the WHO and United Nations' Global Strategy for Women's, Children's and Adolescents' Health. This global agenda recognizes the importance of extending beyond efforts to safeguard the survival of women and their infants to ensure that they "thrive and reach their full potential for health and wellbeing," including a safe labor and childbirth with attention to their psychological and emotional needs.[97,p.1]

Despite the importance of these public health goals and safe, person-centered care for breech birth, there are no known studies exploring breech birth decision-making in the US. Given current evidence regarding perinatal health outcomes associated with home breech birth and the necessity of understanding and incorporating patient preferences and needs into the decision-making process, this research into the decision-making of individuals who left the hospital system to pursue home breech birth is an essential step towards providing evidence-based, person-centered care for breech pregnancy and birth.[19,86,94,98,99] Exploration of the decision-making process in this population is foundational to the effort to decrease unnecessary cesarean births, increase access to respectful and supportive person-centered care, strengthen opportunities for active participation and informed choice in childbirth decision-making, and improve perinatal health outcomes.[18,64,65]

2 Theoretical Frameworks and Literature Review

2.1 Theoretical frameworks

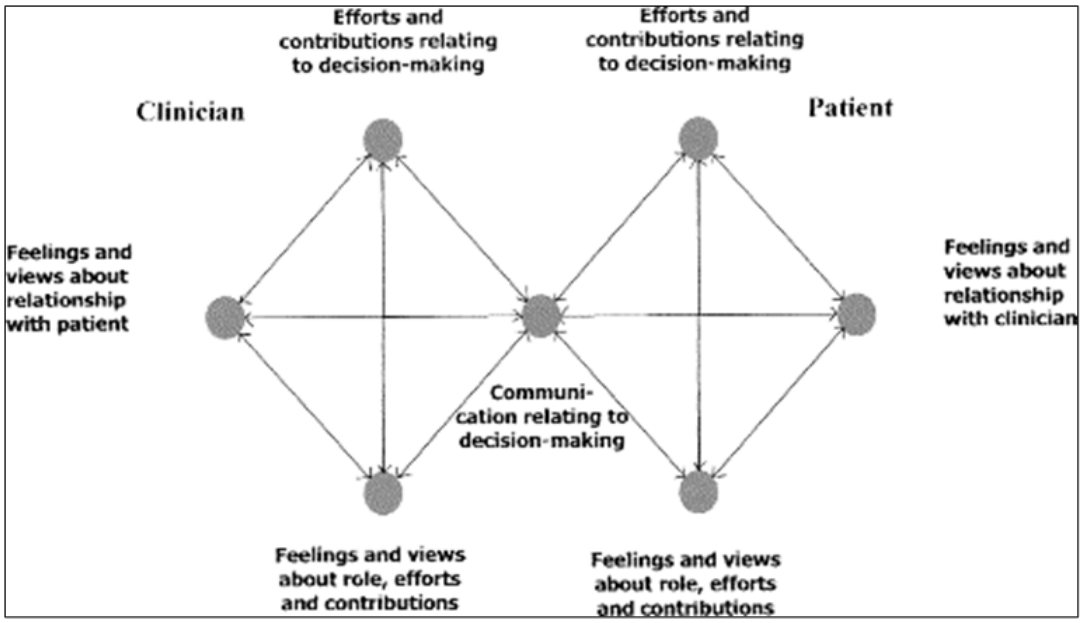
In line with the study methodology (described in Chapter 3), the theoretical frameworks informing this study function to locate the researcher's theoretical allegiance, disciplinary orientation, and personal positions as related to the field of inquiry.[100] The three interrelated frameworks of feminist theory, ethics of care, and the social model of care are fundamental to midwifery and serve as the theoretical foundation for this research. These frameworks inform the theoretical definitions of autonomy and risk that are essential to decision-making. From within feminist and ethics of care frameworks, autonomy is understood to be relational in nature and rooted in sociocultural and political contexts that define its moral dimensions.[101-107] This view is an expanded view of traditional bioethics in which autonomy entails mental competence, access to information, and freedom from coercion in the exercise of agency.[108,109]

Relational autonomy respects each individual's interest in living their life in accordance with their own conception of what is good and acknowledges that one's sense of identity and agency are deeply embedded in social relationships and environments and shaped by complex social determinants and intersectionality.[108,110] This view considers the value of self-knowledge (i.e., embodied knowledge), limitations of the generalizability of medical knowledge to individual patients, and the influence of power and authority on the exercise of agency.[101,106,111] Decision-making and agency are understood to exist within sociocultural constructs of risk, sociopolitical contexts, and cultural and gendered narratives related to the management and control of the female body.[112-115] This is especially true for individuals from racial, ethnic, or socioeconomic populations with unique social narratives of risk, constructions of agency, or historical threats to reproductive justice.[54] Applying this theoretical definition to the framework for this study, those aspects of the situation which might otherwise be viewed as "contextual factors" such as familial, cultural, institutional, and sociopolitical contexts; patient-provider relationships; and cognitive and psychological factors are understood to be essential aspects of decision-making.[103] Health disparities, level of education, socioeconomic status, cultural norms, and other social limitations of responsibility, power, and choice directly shape access to information and care, health literacy, confidence in decisional capacity, self-awareness, and assertion of agency.[87,112-116]

The social model of care frames the holistic interpretation of risk employed in this study. In this model, risk extends beyond adverse biomedical outcomes to include threats to psychological and emotional wellbeing, dignity, bodily integrity, agency, objectification, and other risks as subjectively perceived by the individual, family, and community.[101,113,115,117-121] Risk is the probability of unintended negative consequences, as influenced by perceptions, experiences, expectations, and psychosocial context and incorporating both biomedical and psychosocial indicators.[90,122,123] Risk exists on multiple levels including risks to the individual (e.g., care provider, mother, infant), profession, institution, and society.[124] Perception of risk and safety is recognized as a complex process influenced by a wide variety of psychosocial and cultural factors and deeply entrenched in personal narratives, values, and beliefs.[58,101,125,126]

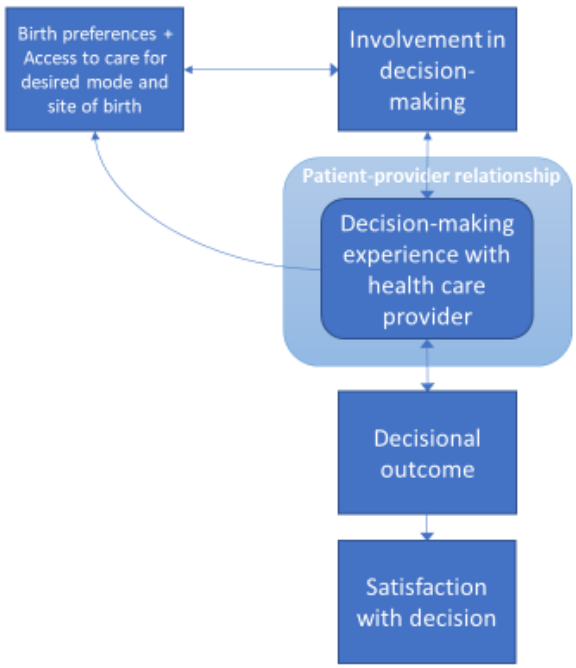
As this is the first study of its kind to examine the experience of decision-making for breech birth in the US, the conceptual model of decision-making used in this study as is adapted from frameworks designed for general clinical application, primarily Entwistle and Watt's model of patient involvement in decision-making (Figure 2-1).[127] The Entwistle and Watt framework offers a comprehensive view of patient involvement, which places decision-making within the context of the patient-provider relationship and considers other important decisional factors such as individuals' information processing, feelings, and views about their role, effort, and contributions.[103,127] Decision-making is broadly conceptualized to include both psychological and microsocial aspects of decision-making, including patient-provider interaction and facets of cognitive and information processing such as risk perception, health literacy, identity intersectionality, and cognitive biases. This framework also considers subjective perceptions of involvement, the interpersonal patient-provider relationship, and the bidirectional nature of those factors on outcomes and processes of decisional interactions.

Figure 2-1 Patient Involvement in Decision-Making



Source: Entwistle and Watt, 2006[127, p.2]

Figure 2-2 Conceptual Model



The conceptual model used in this study (Figure 2-2) differs from the Entwistle and Watt framework in 2 essential ways: First, to increase parsimony, it centers on the patient's perspective (at the exclusion of the provider's). Second, it encompasses both decisional

precursors and outcomes and the wider context in which decision-making occurs. This model extends the scope of decision-making beyond a specific punctuate decision—defined by bioethicist Rebecca Kukla as "a decision made in response to a discrete choice that can be understood in isolation from the rest of a patient's health care."[128, p.35] Instead, decision-making is understood to be a dynamic, continually evolving process that necessarily encompasses external and contextual factors as inextricable components of the situation itself.

The concepts within this model are operationalized as follows: Birth preferences and desired mode and site of birth were defined based on the participant's stated recollection of their views on these areas. Access to supportive care was considered to be "the timely use of personal health services to achieve the best health outcomes"[129, p.2] in a way characterized by the participant as supportive of their physical, emotional, and psychological wellbeing. Involvement in decision-making was defined as explicit and/or implicit participation in the patient-provider interaction determining a clinical course of action, including both psychological and microsocial aspects of participation.[127,130] Patient-provider relationships and decision-making experience was defined based on participants' narratives of these components. Decisional outcome was intended mode and site of birth. Finally, satisfaction with the decision was defined as a positive attitude or affective response to the experience of decision-making and resulting intended course of action and cognitive evaluation of that attitude or response.[131]

2.2 Scientific premise

This is the first known study to explore the experience of decision-making for breech birth in the US. Relevance of international breech birth decision-making research is limited due to distinct contextual differences such as the integration of community and hospital health care systems, access to safe surgical birth, availability of skilled breech providers, support for vaginal breech within the hospital system, and unique sociocultural norms around mode and site of birth. Despite these shortcomings, a brief review of this literature may be useful to situate the study within existing knowledge of the topic and highlight gaps within current research. Of note, a systematic review of the experience of women seeking to plan a vaginal breech birth is currently underway and will likely provide additional insight to support the scientific premise for this emerging area of research.[132]

Two quantitative studies on mode of breech decision-making were identified in a review of the literature. The first, by Glaso, et al. performed a retrospective analysis of medical records and survey responses among 204 candidates for term vaginal breech birth at a single hospital in Norway to compare demographics, sources of information, and level of satisfaction in individuals who selected planned cesarean or planned vaginal birth.[133] The authors concluded that there were differences in age, parity, and attitudes towards breech presentation between these two groups, with high satisfactions levels across both groups. Internet sources and health care providers were the most commonly cited sources of information used to inform decisions for mode of birth. No description of providers' role in decision-making was provided, and only 60% of the women in the planned vaginal group (versus 85% of those in the planned cesarean group) reported feeling that they made the final decision regarding mode of birth.[133]

The second quantitative study, by Abdessalami, et al. evaluated the effect of 3 different counseling techniques on women's mode of breech birth decision-making in a prospective observational study in the Netherlands.[134] This study analyzed data from the medical records of 364 women who had breech births at a single hospital over a 2-year period. The researchers found there were statistically significant differences of intended mode of birth decisions between groups and concluded that provider counseling technique "plays a crucial role" in mode of birth decision-making.[134, p.101] However, no direct participant data were used to reach this conclusion, and differences between counseling techniques were not readily apparent, with one of the groups' techniques described as not having a distinct counseling style but rather being dependent on the provider's undefined preference for mode of birth.

There are also several qualitative studies of the experience of breech birth decision-making from Australia,[135,136] Switzerland,[137] the United Kingdom,[138] and Canada.[139] There was also one identified qualitative study that included US women as part of a larger, international study sample including 7 countries.[71] These studies found that the decision-making experience was an emotionally profound one involving complex intrapersonal and contextual factors,[137] and that many individuals seeking vaginal breech birth found it challenging to find supportive care.[71] Specific influences on decision-making were identified, namely partners/family, health professionals, birth culture, availability of time for decision-making, and risk perception.[138,139] The researchers also described several themes underlying decision-making such as losing control/choice, searching for information and support, experiencing coercion and fear, fighting

the system, and overcoming obstacles.[71,135,136] Recent studies have highlighted the potential for disempowerment and loss of autonomy in breech birth decision-making and call for increased use of shared decision-making in breech birth counseling.[136,139] However, the value of these studies in informing this research effort is limited due to samples that were limited to individual health centers that offered care for planned vaginal breech birth,[137] included preterm gestations,[139] or had a small number of participants who experienced a vaginal breech birth (i.e., n=1 in Wang,[139], n=1 in Thompson,[138]; n=3 in Guittier[137]). Additionally, trustworthiness of research findings in some studies is limited due to minimal description of steps taken to ensure integrity in data collection and analysis,[135] or the absence of a specific qualitative method.[136]

2.3 Researcher positionality

In qualitative research, transparency and credibility are understandably enhanced through disclosure of the researcher's positionality, including their clinical and personal background.[140] Towards that aim, it should be noted that the primary investigator (PI) of this research is a Certified Nurse-Midwife and midwifery educator who has clinical experience and personal experience in hospital and community birth settings in the US. The PI has not worked in a setting that offered care for planned vaginal breech birth and does not have clinical expertise as a primary breech birth attendant nor personal experience in having had a breech pregnancy or birth. None of the participants were known to the researchers prior to the study.

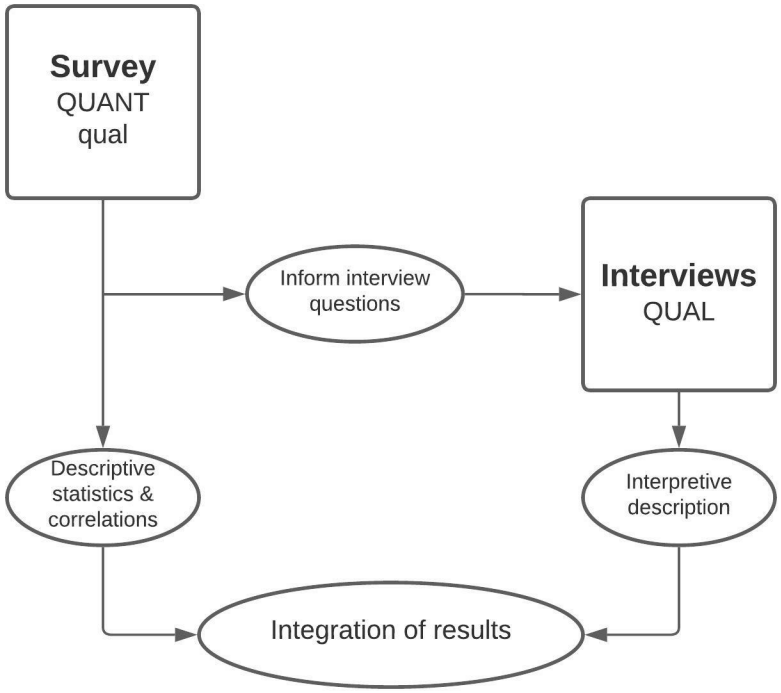
3 Methodology

3.1 Research design

This study used an explanatory, sequential mixed methods design that included a mixed methods survey and semi-structured qualitative interviews (see Figure 3-1 Mixed Methods Design).[141] The survey collected demographic information, quantitative and open-ended qualitative data about the experience of decision-making, and responses to validated instruments assessing involvement in decision-making and decisional satisfaction (described in Section 3.3.2). In qualitative interviews, participants were asked to describe their experience and provide additional information about their experience, rationale, reflections, interactions with health care providers, and recommendations to improve care. They were also asked to explain or expand upon any unique or unusual responses to the survey. The survey and interview guide are provided in Appendices B and C, respectively.

According to Creswell and Plano Clark, the explanatory, sequential mixed methods design allows for inclusion of both quantitative and qualitative data, bringing greater insight into the phenomenon than could be obtained by either approach alone.[141] Quantitative data in this study were used to inform qualitative data collection, and qualitative data were used to explore, expand upon, and contextualize quantitative responses.[141] Both qualitative and quantitative data were initially analyzed independently; no data were transformed for mixed methods analysis. All data were integrated for analysis as appropriate to address the study aims and strengthen the reliability of study findings.

Figure 3-1 Mixed Methods Design



3.2 Sample and setting

The target population for this study was individuals who transferred care out of the hospital system to pursue a home breech birth in the US in the last 5 years.

3.2.1 Sample size

In consultation with committee members, a proposed minimum goal of 20 interview participants was set to support both deep case analysis and increased transferability of study findings, with the understanding that final sample size would be determined by theoretical saturation.[142-144] It was originally intended that this qualitative sample would be a subset of a larger pool of participants who completed the survey only. This larger sample size for quantitative data collection was intended to detect correlations with statistical power and allow sub-group analyses of specific variables to be explored in future research. However, recruitment challenges (discussed below) in accessing participants who met eligibility criteria for this rare outcome required revision to this proposed plan for a nested sample of interview participants. The final study sample size is presented in Figure 4-1.

3.2.2 Inclusion and exclusion criteria

To be included in the study, participants were required to be 18 years of age or older and have received prenatal care in the US in their third trimester of pregnancy with a singleton breech fetus. Only participants who stated that they were intending to give birth in the hospital setting prior to breech diagnosis and made the decision to leave the hospital system in pursuit of home breech birth within 5 years of study enrollment were eligible. Individuals were also required to have the ability to speak, read, write, and understand English well enough to enable effective consent and communication with the researcher and to have telephone or internet access to participate. To capture a broad range of experiences, participants were included regardless of birth outcome, so that someone who ultimately experienced a cesarean, gave birth in an environment other than the home, or delivered their baby in cephalic presentation was eligible to participate if all other criteria were met.

Exclusion criteria included making the decision to pursue home birth prior to a diagnosis of breech presentation, being pregnant and planning a home breech birth at the time of enrollment, or having been pregnant with a non-breech fetus, twins, or higher order multiples when they made the decision to plan for home breech birth. Individuals who did not complete all required survey questions (either independently or with assistance, as described below) were also excluded. Required questions consisted of those deemed essential to the study aims—namely, access to care, measures of involvement in and satisfaction with decision-making, and demographic variables which have demonstrated significant associations with birth experience or satisfaction (specifically, parity, race, geographic location, and mode and site of birth).[145-148]

Eligibility was assessed through a series of 7 questions through the Research Electronic Data Capture (REDCap) research platform, a secure web-based data processing and management application. These questions sought to establish if participants (1) were 18 years of age or older, (2) had been pregnant with a breech baby in the past 5 years, (3) had been pregnant with a singleton fetus (i.e., not twins or multiples) in that pregnancy, (4) had received prenatal care in the United States during the third trimester of that pregnancy, (5) had planned to give birth in a hospital before learning that their baby was breech, (6) had made the decision to plan for a home breech birth, and (7) were not currently pregnant and planning on a home breech birth. This screening was completed anonymously and independently by participants, except where assistance was provided by participants' request. When assistance was requested, the PI would

read the question to the participant by phone or video conference and then confirm and record the participant's response within REDCap (as described in Section 3.3.3).

3.2.3 Recruitment

Recruitment efforts consisted of 3 approaches: (1) requests for administrators of breech birth organizations and groups to share the study website and recruitment flyer via social media (see Table 3-1), (2) direct requests to internationally recognized expert breech birth providers[149-151] to share study information with prospective participants such as former patients, and (3) sharing and cross-posting of the study website and recruitment flyer (snowball recruitment). When these efforts did not result in the desired sample size after 3 months, a fourth approach was initiated using targeted advertising through social media (specifically, Facebook and Instagram). After one month, this advertising campaign did not result in any additional participants, and a final recruitment effort with a revised study flyer and updated website using the 3 methods outlined above was undertaken, which resulted in achieving the minimum proposed recruitment goal of 20 participants.

In total, study recruitment lasted 6 months (from February 8 to August 8, 2021) and resulted in 25 study participants. Based on participant's survey responses, sources of recruitment were as follows: (1) social media posts on Facebook (n=13, 52%) within groups such as Coalition for Breech Birth, Breech Without Borders, Improving Birth, and International Cesarean Awareness Network (ICAN); (2) communication with perinatal care providers (n=11, 44%) such as doctors, midwives, and doulas; and (3) other non-specified social media platforms (n=1, 4%).

Table 3-1 Known Facebook Groups/Pages that Posted the Study Recruitment Flyer

Name	**Audience**
Birthing Instincts	9500 followers
Breech Birth Network	2200 members
Breech Without Borders	3000 followers
Coalition for Breech Birth	6700 members
Freebirth/Unassisted Childbirth	3000 members
Improving Birth	55,000 followers
International Cesarean Awareness Network	9900 members
Midwives Alliance of North America	20,000 followers
National Association of Certified Professional Midwives	4000 followers

Spinning Babies	120,000 followers

3.2.4 Sampling approaches

This study used purposive convenience and snowball sampling through targeted social media sites and organizations and expert breech birth providers to enable the generation of theory based on the shared experiences and central dimensions of the phenomenon drawn from a diverse sample.[152,153] This sampling strategy aimed to achieve a sample sufficient for theoretical saturation of qualitative data with maximal variation based on patient demographics (i.e., parity, race, region, setting, age, insurance coverage, and provider type) and phenomenal variation (i.e., birth outcome, access to supportive care for hospital vaginal breech birth, and scores on validated measures of decisional involvement and satisfaction).[100,144,153-155] A maximum variation sampling approach was used to increase the likelihood that study findings would capture the complexity of the phenomenon from differing perspectives to strengthen the credibility and transferability of study findings.[152,156]

3.2.5 Strategies to ensure human subjects protection

This study was reviewed by the Vanderbilt University Institutional Review Board (#201835) and deemed exempt, as it was determined that the study posed minimal risk to participants. A secure web-based data processing and management application (REDCap) was used to establish eligibility, provide detailed information about study goals and procedures, and confirm participants' willingness to participate in the study voluntarily. REDCap has demonstrated compliance with healthcare research protection standards and proven efficacy for research involving reproductive-aged women with varying levels of health literacy.[157,158]

Participants were informed prior to both the survey and interview phases that participation was voluntary and that they could choose to stop or withdraw from the study at any time. Participants were also encouraged to alert the researcher if at any point they experienced any stress or discomfort and were assessed for any signs of agitation or distress during the interview. Some participants did show signs of sadness or frustration when recollecting difficult aspects of their experience, but no signs of psychological or emotional distress beyond what would be experienced in everyday living were detected. Participants were offered a $50 electronic gift card (to Amazon.com or Target) at the conclusion of both study components in compensation for their time. This compensation is in line with reasonable fair wage estimates for the target population.[159]

Multiple provisions were made to ensure protection of participants' privacy and confidentiality throughout the study. Participants were not required to provide their name, contact information, or any other identifiable information unless they wished to be contacted by the researcher. They were informed that all identifying information would be removed from publications and presentations to protect privacy and anonymity. Invitations to participate in interviews included information about the intent to record, and participants were given the option of audio-video or audio-only interview participation. Verbal consent to record was also obtained at the onset of the interview prior to initiation of recording. Finally, a detailed, secure data collection and management plan was implemented to ensure data protection, as outlined in Section 3.3.3.

3.3 Data collection methods

3.3.1 Overview of data collection procedures

Data generation and collection in this study included (1) eligibility screening, (2) survey, (3) semi-structured interviews, and (4) researcher-generated qualitative data such as field notes and situational maps through the following process: First, interested participants were directed from the study website to an online self-reported eligibility screen. If eligible, they were directed to the survey. Next, participants completed the survey within in REDCap independently, except where assistance was requested. Assistance with survey completion was offered to participants who had initiated but not completed the survey independently, indicated a willingness to be contacted by the researcher, and provided contact information. At the conclusion of the survey, all participants were asked if they would be willing to participate in an in-depth interview. In the third phase of data collection, participants who indicated a willingness to participate in an interview were invited to do so, and in-depth, semi-structured qualitative interviews were conducted via online videoconferencing or by telephone. Most interviews were performed via Zoom with video enabled (n=19, 83%) with one participant joining in audio-only mode (n=1, 4%). Three participants (n=3, 13%) were interviewed by telephone (audio-only) by their request. Interviews lasted between 1–2.5 hours (N=23, 59–155 min, M 1.75 hours [SD 25 min]) in total, with some interviews taking place over more than one session due to time constraints or unanticipated interruptions. All interviews were recorded, transcribed, and checked for accuracy. Field notes and reflective memos were completed following each interview. A final component

of data collection included the researcher-generated analytic memos and situational analysis maps, as consistent with the study methodology.[100,142,160-162]

3.3.2 Instruments

In accordance with the study's mixed methods approach, key study variables such as the experience of decision-making, preferences for site and mode of birth, and perceived access to care were assessed through both responses to the survey and interviews. Involvement in decision-making and decisional satisfaction were assessed quantitatively through completion of the Mother's Autonomy in Decision-Making (MADM) and Satisfaction with Decision (SWD) validated instruments.[163,164] Quantitative responses were explored and contextualized through qualitative interview data.

Mother's Autonomy in Decision-Making (MADM). The MADM is a 7-item scale designed to assess autonomy and role in maternity care decision-making (see Appendix A: Mother's Autonomy in Decision Making (MADM). MADM is based on a framework of person-centered care that values informed choice and experiential knowledge.[163] The measure asks individuals to rate 7 items about their maternity care experience on a 6-point Likert scale (from completely disagree to completely agree). The score range is 7 to 42, with higher scores indicating more opportunities to take an active role in decision-making. This measure has been applied in several recent studies exploring both antepartum and intrapartum management decisions.[54,165-171] The instrument was found to be reliable across multiple subsamples based on parity, including primigravid, primiparous, and multiparous women (Cronbach's alpha [α]=.93–.97).[163] The MADM scale is free for use in academic settings and was obtained from Birth Place Lab following submission of a signed user agreement. Similar to what has been reported in other research using this measure, the reliability of scores in this study was high (α=.97).

Satisfaction with Decision (SWD). The SWD scale is a 6-item patient-reported measure of satisfaction with decision-making (see Appendix A).[164] It was originally developed for use as a clinical tool in the context of postmenopausal hormone-replacement therapy and has since been broadly applied in assessing satisfaction with a large variety of clinical decisions across multiple health care disciplines and patient populations.[172-175] This instrument was designed to consider the effect of the clinical interaction and assess satisfaction with the decision, irrespective of the health outcome. For this reason, this tool is particularly applicable to the phenomenon of mode of birth decision-making where discrepancy may exist between intended and actual modes of

birth. The SWD instrument asks participants to use a 5-point Likert scale (from strongly disagree to strongly agree) to rate 6 statements about their satisfaction regarding level of knowledge, consistency with personal values, congruence with personal preference, anticipation of plan implementation, ownership of the decision, and overall satisfaction with the decision. The range of scores is 6 to 30, with higher scores indicating greater satisfaction with decision-making. The SWD scale has shown high reliability (α=.88),[164] and this study demonstrated similar reliability of total SWD scores (α=.80).

3.3.3 Protocol for data collection and management

Recruitment materials directed potential participants to the study website where they could access a link to the eligibility screen and subsequent survey in REDCap. In 2 instances, participants reached out to the PI for assistance with study enrollment. In these cases, the PI contacted participants by phone, asked the eligibility screening questions verbally, and entered participants' responses into REDCap. As stated above in Section 3.2.2, participants were required to complete all mandatory survey questions to participate. Those who did not do so but had responded that they were willing to be contacted by the researcher and provided their contact information were contacted directly by the PI to offer assistance with survey completion. In the 2 instances in which participants responded to this offer and requested assistance, the PI contacted participants and proceeded with assistance in survey completion as described above. These conversations were recorded with consent and reviewed to ensure the accuracy of data entry.

Following completion of the survey and review of responses by the PI, participants were invited by email to participate in an interview. In this invitation, participants were offered to interview through the Zoom video conferencing platform in video-enabled or audio-only modes or by telephone. Participants who did not respond initially were sent reminders by email. After receiving confirmation that the participant desired to schedule an interview, the PI corresponded with them by their preferred contact method (i.e., email, phone, or text messaging) to find a convenient time. Participants were then sent confirmation of the scheduled time with a reminder that participation was voluntary and could be stopped or suspended at any time and that the interview would be recorded and kept confidential. By default, participants who did not indicate a preference for telephone were provided a secure Zoom link for the interview.

Semi-structured interviews followed an interview guide (see Appendix C) and explored open-ended comments and unique responses from the survey. Interviews began by asking

participants to describe their experience. Follow-up prompts asked participants to share considerations and influential factors in decision-making, narrative of interactions with health care providers, perception of risks and benefits, reflections, and recommendations. Interviews were conducted remotely by online conferencing software (Zoom.com) using audiovisual or audio-only modes with recording enabled.[176] Telephone interviews with use of a digital recorder were substituted in situations where technical or logistical barriers prevented use of the Zoom platform or upon participant request.[177] When circumstances prevented participants from completing the interview in a single session, subsequent interviews were scheduled and completed following the same protocol.

All interviews were transcribed, deidentified, and reviewed for accuracy. The first 3 interviews were transcribed by the PI, and a secure transcription service was used for remaining interviews. Digital recordings were reviewed during the verification of transcription accuracy to gain further insights from audiovisual discursive constructs.[178] Deidentified transcripts were then uploaded into ATLAS.ti software, Version 9.1.1 (Berlin, Germany), for coding and analysis. Researcher-generated field notes, memos, and situational maps were developed and revised using deidentified data.

As stated previously, a detailed, secure data collection and management plan was implemented to ensure protection of the data. All qualitative interviews were conducted via a secure, research-compatible, password-protected platform (Zoom.com) or by telephone. Audio and video recordings and identifying participant data were stored on Vanderbilt University's Box.com file repository or REDCap and accessed or transmitted via user-specific authentication over secure internet connections on password-protected electronic devices accessible only to study personnel. Professional, secure transcription services were used to transcribe recordings, and transcripts were deidentified (removing names, locations, institutions, or other identifiable information) prior to being uploaded into analytical software. Upon study completion or withdrawal, any identifiable participant data will be destroyed. Deidentified data will be archived indefinitely in the REDCap file repository or Vanderbilt University's secure data storage system (Box.com).

3.4 Data analysis

In line with the research design (described in Section 3.1), a multiphase approach to data analysis was employed in this study. Quantitative and qualitative analytical approaches are described in detail below.

3.4.1 Approaches to analysis

3.4.1.1 Quantitative analysis

Quantitative data from the survey were deidentified and exported from REDCap into IBM SPSS Statistics Version 27 (Armonk, NY) software. Missing data values were assessed, summarized, and removed on a criterion basis (pairwise deletion). Where there was a question regarding the validity of quantitative data such as apparent discrepancies with other survey responses, participants were asked to confirm their responses during interviews. Where appropriate, quantitative responses were adjusted for congruence with participant responses during interviews. These changes were annotated within REDCap with the rationale and date of the change.

Frequency distributions were used to summarize nominal and ordinal demographic characteristics of the study sample. To compare the study sample to the target population, a one sample t-test was used for continuous variables and one-sample Chi square test for categorical variables. Because scores on measures of decisional involvement and satisfaction were not normally distributed, medians and interquartile ranges were provided, and a Spearman's rank-order correlation was calculated to measure the strength of the correlation. Where applicable, tables or graphs were used to assist with data interpretation and presentation.

3.4.1.2 Qualitative analysis

The approach to qualitative analysis in this study was interpretive description informed by situational analysis. Interpretive description is an applied qualitative method which uses an inductive approach to explore subjective perspectives of clinical phenomena to generate knowledge with pertinent clinical application.[100,178,179] Situational analysis is a relational and ecologically-oriented qualitative approach which examines the situation itself as the key unit of analysis. The "situation" is defined to include both human and non-human (e.g., political/economic, sociocultural, temporal) elements.[142]

In accordance with a situational analysis approach, early situational, social arena, and positional maps of decision-making were developed based on the review of the literature,

theoretical framework, and experience of the researchers.[142] To plot core debates and positions in the situation essential for situational mapping, the PI examined discourse materials such as social media posts and publications from individuals seeking vaginal breech birth, breech birth training and educational materials, professional organizational committee opinions, and breech birth provider interviews, editorials, letters, and blog posts.[142] Situational maps were revised multiple times based on emerging results of qualitative analysis. Final versions of these maps are presented in Section 4.2.

Qualitative data collected from open-ended survey responses were deidentified and uploaded into ATLAS.ti for analysis. Participant responses to the survey were used to inform the qualitative interview guide for each individual participant based on any unique or unusual responses that would benefit from further clarification or exploration. Interviews were conducted, deidentified, transcribed, verified for accuracy, and uploaded into ATLAS.ti as described above.

Data were then analyzed in collaboration with qualitative experts (dissertation committee members JCP and HPK) as follows: In accordance with the study methodology, the next step in analysis was immersion in the data including open-ended survey responses, interview transcripts, and digital interview recordings through both holistic and line-by-line readings of data.[100,142] Initial coding was completed through a constant comparative coding strategy using both descriptive and in vivo codes by assigning conceptual codes to each meaningful segment of data.[180] This iterative coding process was driven by the research questions: (1) what was the participant's experience, and (2) what can be learned from this to improve care.[100] Each code was defined and described, including relevant inclusion and exclusion criteria, exemplars, or examples of "close, but no" which might otherwise be mistakenly assigned to the code.[181]

A detailed audit trail was kept describing the process of codebook development including the creation of new codes, merging of codes, and changes to existing codes. A second independent coder (JCP) participated in multiple coding comparisons until it was determined that inter-coder consensus had been achieved.[181] Any codes which did not easily fit into the codebook or clearly merit a new conceptual code were marked as "To Discuss" and agreement on coding was achieved by consensus. At the conclusion of 20 interviews, it was determined that theoretical saturation had been achieved, and analysis of the final few interviews did not result in the generation of any new properties of theoretical categories.[100,180] The final codebook was

reviewed, revised, and accepted through consensus with dissertation committee members (JCP and HPK).

Focused coding then sought to identify frequent or theoretically significant codes, synthesize and organize initial codes, and conceptualize themes and patterns of participants' experiences including elements of decision-making and situational elements to develop practical recommendations to improve perinatal care.[180] Core conceptual categories were defined including their dimensions and properties, then explored in relation to other codes and themes and reexamined through direct engagement with the data.[142,180] A diagram was created to explore and illustrate relationships between themes and the experience of decision-making (presented in Figure 4-5). Agreement on focused codes and themes was achieved by consensus with dissertation committee members (JCP and HPK) using a comparative analysis of major domains and subcategories.

Reflective and theoretical memoing and reconfiguring of situational maps were performed throughout analysis to contribute to the development of emerging theory and inform future data analysis. Researcher-generated data such as field notes and reflections were reviewed by committee members (JCP and HPK) and discussed as a group. Theoretical findings, situational analysis maps, and recommendations for practice were developed by the PI and analyzed in debriefing (JCP and HPK).

Multiple iterative strategies were taken to ensure rigor in this study including prolonged engagement in the field, data checking and verification, use of analytic memos, critical reflection, field notes, and disclosure of researcher positions within the field.[100,142,152,160] A detailed audit trail was maintained demonstrating the evolution of codes (described above) in addition to a comprehensive project log outlining the research process and results of committee meetings and decisions. Findings were grounded in the data with theoretical claims supported by direct quotes from participants. Debriefing was undertaken with expert qualitative researchers (JCP and HPK) to verify conceptual analysis of fit between data and theory. Participant re-engagement through member-checking was used to elaborate on core themes and facilitate theoretical saturation.[180] Finally, the plausibility of practice recommendations was discussed with an expert provider in breech birth (Dr. Stuart Fischbein).[34,151,179] CORE-Q criteria were applied for reporting of qualitative data.[140]

3.4.2 Aims

3.4.2.1 Aim 1: Explore the experience of decision-making

The primary aim of this study was to explore the experience of decision-making of individuals who transferred out of the hospital system to pursue home breech birth, including interactions with health care providers and institutions. For this study, the experience of decision-making is the recollection of events, feelings, and thoughts the process of determining the intended plan for mode and site of birth. Interactions with health care providers and institutions may involve a single conversation or span across multiple points of interaction, healthcare encounters, and providers. Consistent with the theoretical framework for this study (outlined in Section 2.1), this experience includes familial, cultural, institutional, and sociopolitical contexts; patient-provider relationships; individual preferences, values, and feelings; and cognitive and psychological factors such as information processing, feelings, and views about decision-making role, effort, and contributions.[103] In this study, the researcher aimed to construct a coherent narrative of participants' experience of decision-making to inform recommendations to improve perinatal care using the qualitative approach described above. Direct quotes from participants, tables of themes and codes, and a graphic illustration were provided to support and enrich theoretical explanations.

3.4.2.2 Aim 2: Assess preferences for mode and site of birth and access to care

The second aim of this study was to assess preferences for mode and site of breech birth and perceived access to supportive care for a planned vaginal breech birth. Preference for site and mode of breech birth were defined as a participants' stated recollection of preferred birth setting and mode of birth. Access to supportive care was operationalized as "the timely use of personal health services to achieve the best health outcomes"[129, p.2] in a way characterized by the participant as supportive of their physical, emotional, and psychological wellbeing.

We hypothesized that the vast majority of participants (> 90%) would report a preference for planned vaginal breech birth in the hospital system and a lack of access to supportive care for this preferred mode and site of birth. Quantitative data for this aim was analyzed as described above and summarized using counts and percentages and formatted into a table for presentation (see Table 4-3). Given the limitations of quantitative data collection for these variables (discussed in Section 5.1.4), this aim was changed from a quantitative aim (as originally

proposed) to a mixed methods one, using qualitative data to clarify and contextualize quantitative findings.

3.4.2.3 Aim 3: Describe the relationship between autonomy and decisional satisfaction

The third study aim was to describe the relationship of participants' involvement in decision-making and satisfaction with the decision to leave the hospital system using 2 validated instruments (described in Section 3.3.2). Involvement in decision-making was understood to be explicit and/or implicit participation in the patient-provider interaction determining a clinical course of action, including both psychological and microsocial aspects of participation.[127,130] Satisfaction with the decision was defined as a positive attitude or affective response to the experience of decision-making and resulting intended course of action and cognitive evaluation of that attitude or response.[131]

It was hypothesized that a lack of involvement and autonomy in decision-making would be inversely correlated with decisional satisfaction to leave the hospital system to pursue home breech birth. As decisional involvement and satisfaction scores were not normally distributed, the strength of correlation between these measures was analyzed using a Spearman rank-order correlation coefficient. An alpha (α) of $<.05$ ($p<.05$) was used for determining statistical significance (see Section 4.3.3).

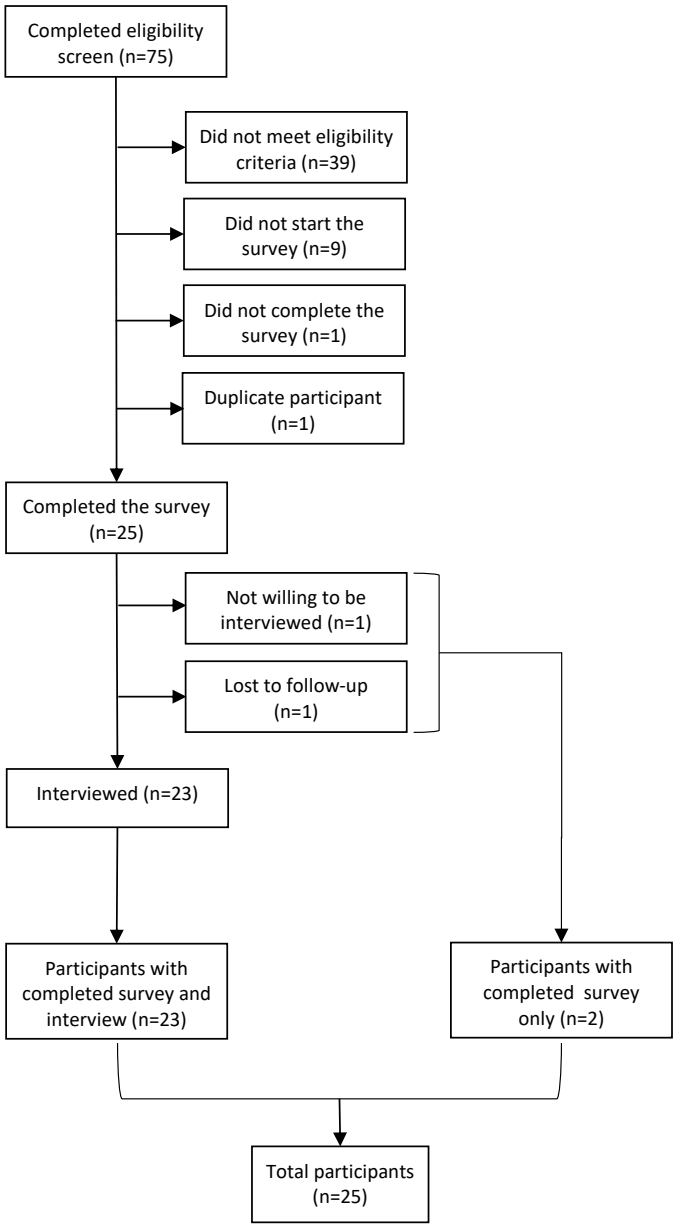
4 Results

4.1 Sample characteristics

4.1.1 Sample size

The final sample size for this study was 25 participants. Two participants either declined interview (n=1) or were lost to follow-up (n=1), thus only their survey responses were available for analysis. Study enrollment is illustrated in Figure 4-1 Study Enrollment.

Figure 4-1 Study Enrollment



4.1.2 Participant demographics

Participant demographics are summarized in Table 4-1. Comparison of the characteristics of this sample to those of a larger sample of the general US homebirth population based on CDC data is discussed in Section 4.1.6.

Table 4-1 Demographics of Study Sample (N=25)

Characteristic	**n (%)**	**Range**	**Median (IQR)**
Age (N=23)		22-42	36.4 (30.5-38.0)
Parity			
Nulliparous	7 (28)		
Primiparous	7 (28)		
Multiparous	11 (44)		
Region in US			
Midwest	9 (36)		
Northeast	1 (4)		
South	6 (24)		
West	9 (36)		
Setting			
Rural	5 (20)		
Suburban	13 (52)		
Urban	7 (28)		
Distance from home to hospital		5-30	10.0 (7.0-20.0)
Race/Ethnicity			
American Indian or Alaskan Native	0 (0)		
Asian	1 (4)		
Black or African American	0 (0)		
Hawaiian Native or Pacific Islander	0 (0)		
Hispanic or Latinx	2 (8)		
Multiracial	1 (4)		
White, Not Hispanic or Latinx	19 (76)		
Other (“Central American”, “West Indian”)	2 (8)		
Country of birth			
United States	21 (84)		
Other	4 (16)		
Religion			
Does not identify with a religious group	13 (48)		
Christian	10 (40)		
Other major world religions	0 (0)		
No response	2 (8)		
Highest level of education			
Some high school	0 (0)		
High school/GED	1 (4)		

Characteristic	n (%)	Range	Median (IQR)
Some college	7 (28)		
Undergraduate degree	9 (36)		
Graduate or professional degree	4 (16)		
Doctorate degree	4 (16)		
Foreign degree	0 (0)		
Type of health insurance			
Medicaid or public state	4 (16)		
Private/commercial	19 (76)		
Tricare	1 (4)		
Other	1 (4)		
None (uninsured)	0 (0)		
Married or partnered			
Yes	25 (100)		
No	0 (0)		
Gestational age at decision			
Less than 35 weeks	5 (20)		
35 to 36 weeks	3 (12)		
37 to 40 weeks	14 (56)		
40 to 42 weeks	3 (12)		
More than 42 weeks	0 (0)		
Months since the birth		0-71	10.3 (2.9-36.6)

4.1.3 Additional sample characteristics

Given that other research has suggested an association between individuals who pursue homebirth and a higher incidence of history of trauma,[170,182] several forms of PTSD screening were included in this study. First, participants were asked on the survey to identify any medical complications including a history of PTSD. No participants disclosed a history of PTSD through this measure. Second, participants were asked to complete a modified version of the 2-item PTSD Checklist (PCL).[183] In response, 56% of participants (n=14) stated that they had avoided activities or situations because they reminded them of a stressful experience from the past, and 72% (n=18) stated that previous negative life events may have affected their decision to leave the hospital system to pursue a home breech birth. Participants who answered yes to either of the PTSD Checklist questions were asked to expand upon their responses during the interview. Responses to this inquiry included previous negative encounters in the healthcare system, history of assault, and hearing negative experiences of other individuals. Finally, in qualitative interviews, several participants disclosed a history of trauma, reported feeling traumatized by their experience, or shared that a previous negative experience of care in labor/birth influenced

their decision-making. Many participants reinforced that prior negative birth experiences influenced their decision to seek care outside of the hospital system, as discussed below.

Participants were also asked about any obstetric or medical complications during their pregnancy. No participants reported any medical complications such as diabetes, hypertension or preeclampsia, known fetal anomalies, or psychiatric conditions. Many participants (n=19, 76%) were offered an external cephalic version to manually reposition the fetus into a cephalic position. Sixteen participants (n=16, 64%) underwent the procedure with one (n=1/16, 6%) being successful resulting in a cephalic presentation at birth. Through convergence of quantitative and qualitative data, it was determined that 6 participants (n=6/18, 33.3% of parous participants) had a prior cesarean birth and were seeking a vaginal birth after cesarean (VBAC) during the pregnancy in question. It is also noteworthy that 11 participants (n=11/18, 61.1% of parous participants) voluntarily disclosed they had experienced more than one pregnancy with breech presentation at term. Finally, although not asked directly, most participants provided information about their profession and prior experience related to pregnancy and birth care. Through this open-ended data collection, it was discovered that the study sample included one individual who identified as a researcher in areas related to neonatal health, one labor and delivery nurse who worked in a hospital setting, and 2 participants with doula experience.

4.1.4 Number and types of care providers

As shown in Table 4-2, across each stage of pregnancy/birth, approximately one in 4 participants had more than one type of provider primarily responsible for their care. The types of providers primarily responsible for providing care are presented in Figure 4-2.

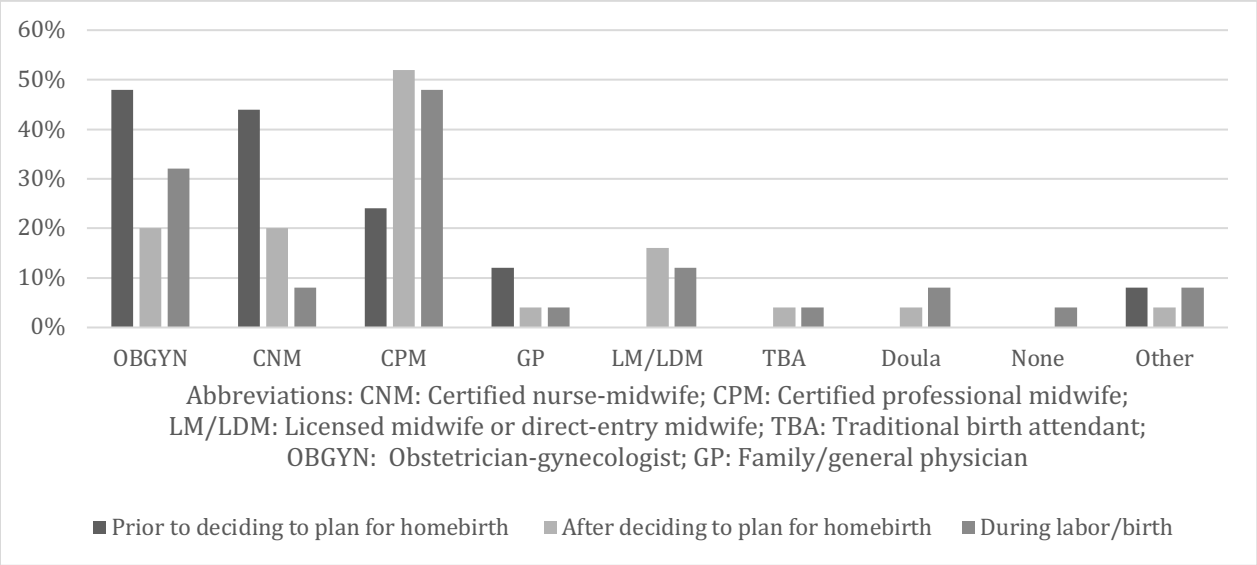
Table 4-2 Number of Types of Providers Primarily Responsible for Providing Care (N=25)

Number of Types of Providers	Stage of pregnancy/birth n (%)		
	Prior to deciding to plan for homebirth	**After deciding to plan for homebirth**	**During labor/birth**
One type of provider	17 (68)	19 (76)	18 (72)
Two types of providers	7 (28)	6 (24)	7 (28)
Three types of providers	1 (4)	0 (0)	0 (0)

During the phase of prenatal care in which participants were planning a hospital birth, most participants sought care from either obstetrician-gynecologists (OBGYNs) (n=12, 48%) or certified nurse-midwives (CNMs) (n=11, 44%). Once making the decision to plan for homebirth,

certified professional midwives (CPMs) provided the majority of care (n=13, 52%). During labor and birth, CPMs (n=12, 48%) and OBGYNs (n=8, 32%) were the primary types of providers responsible for care. However, it is important to note that when questioned during qualitative interviews, several participants admitted uncertainty regarding the qualifications of their provider(s) and a lack of clarity regarding the differences between types of midwives. There was also one participant who was uncertain of her doctor's qualifications, whom she thought to be either a family/general physician or naturopathic doctor.

Figure 4-2 Types of Care Providers Primarily Responsible for Providing Care (Graph) (N=25)



**Note*: Participants could select multiple types of providers for each stage of pregnancy/birth. Options were also given for providers with more than one type of certification and "other" types of midwives, but no participants reported these types of providers. Provider types are listed in order of frequency based on the first stage of decision-making.

4.1.5 Birth outcomes

Of the 25 births in this study, 22 (88%) occurred at home (see Table 4-3). All 3 (12%) remaining births took place in a hospital. Of those hospital births, one was an unscheduled, non-emergent cesarean; one was a planned hospital vaginal breech birth; and one was a planned cephalic vaginal birth following successful external cephalic version (ECV). All but 2 infants (n=2/25, 8%) were born in breech presentation. Of the 2 cephalic-presenting infants, one was a planned hospital cephalic birth following successful ECV (previously mentioned), and the other was an unstable or misdiagnosed presentation resulting in a cephalic homebirth.

Table 4-3 Birth Outcomes (N=25)

Outcome	n (%)
Presentation at birth	
Breech	23 (92)
Cephalic	2 (8)
Site and mode of birth	
Home	22 (88)
Hospital	3 (12)
Cesarean	1 (33)
Vaginal	2 (66)
Intrapartum, postpartum, or neonatal transfer of care	
Yes	3 (12)
No	22 (88)

Only one (4%) of the 25 planned vaginal births in this study resulted in cesarean birth. This participant reported not finalizing plans for homebirth in time and presenting to the hospital for a non-emergent cesarean for breech presentation. There were no intrapartum transfers of care. Two participants (n=2, 8%) transferred to a hospital in the postpartum period, both due to retained placenta. There was one (n=1, 4%) neonatal transfer, due to a depressed skull fracture visible at birth. This fracture was suspected to be related to a complicated ECV and required non-emergent neonatal transfer and surgical intervention. Other participant-reported complications related to the labor or birth included retained placenta requiring manual or surgical removal (n=4, 16%), prolonged postpartum dyspareunia (n=1, 4%), postpartum anemia (n=1, 4%), and short-term neonatal brachial plexus injury (n=1, 4%). There were no reports of complex neonatal resuscitations or any long-term neonatal complications.

4.1.6 Comparison to data on the general US homebirth population

The findings of this study are not intended to be generalizable to the general US homebirth population or represent all individuals seeking home breech birth. Nonetheless, it is worthwhile to examine the extent to which the study sample is representative of the target population by comparing the sample demographics with characteristics of larger samples of the general US homebirth population. Table 4-4 displays demographics comparing this study sample to the 133,972 homebirths (intended or unknown if intended) in the Centers for Disease Control and Prevention (CDC) Wide-ranging Online Data for Epidemiologic Research (WONDER) database.[9]

Table 4-4 Comparison of study sample demographics and CDC data on general US homebirth population

Characteristic	**Study sample** N=25 2015-2021	**CDC WONDER** N=133,972 2016-2019	**p value**
Age (N=23)	34.4 (5.2)	30.7 (5.3)	*.002*
Parity			.631
Nulliparous	28.0	18.1	
Primiparous	28.0	26.7	
Multiparous	44.0	55.0	
Region in US			.327
Midwest	36.0	26.2	
Northeast	4.0	16.3	
South	24.0	26.3	
West	36.0	31.2	
Setting			.640
Rural	20.0	25.0	
Suburban/Urban	80.0	75.0	
Race/Ethnicity			.877
American Indian or Alaskan Native	0.0	0.5	
Asian	4.0	1.9	
Black or African American	0.0	3.9	
Hawaiian Native or Pacific Islander	0.0	0.1	
Hispanic or Latinx	8.0	6.1	
Multiracial	4.0	2.5	
White, Not Hispanic or Latinx	76.0	82.8	
Other	8.0	*n/a*	
Country of birth: United States	84.0	92.3	.383
College-educated	96.0	64.8	*.005*
Private insurance	76.0	18.1	*<.001*
Married/partnered	100.0	83.3	.157
Birth attendant[*]			*.002*
OBGYN/Physician	36.0	1.1	
Certified nurse-midwife (CNM)	8.0	26.9	
Certified professional midwife (CPM)	48.0	*n/a*	
Licensed or direct-entry midwife	12.0	*n/a*	
Other/unknown	8.0	19.8	
Breech presentation at birth	92.0	0.7	*<.001*
Seeking vaginal birth after cesarean (VBAC)	24.0[†]	4.1	*.042*

Notes: Age appears as mean (standard deviation); all other variables are reported as percentages.
[*] Selection of multiple provider types permitted in study sample
[†] Mixed methods variable (quantitative survey data and qualitative counting)

As this comparison shows, the study sample had similar demographics in relation to parity, region/setting, race/ethnicity, country of birth, and marital/partnership status to the general US homebirth population. There are several notable characteristics of this study sample that differ from those of a larger, more general US homebirth sample represented in the CDC dataset of homebirths (planned or unknown if intended) from 2016-2019. For example, the study sample was slightly older (M 34.4 SD [5.2] v. 30.67 [5.3], p=.002) and had higher rates of college-level education (96.0% v. 64.8%, p=.005) and private insurance (76.0 v. 18.1, p<.001) that those in the CDC dataset.

4.2 Situational analysis mapping

Consistent with the situational analysis approach, this study includes a depiction of the relational ecology of the situation through ordered situational, social worlds/arenas, and positional maps to frame the situation.[142] These maps serve to provide an overview of the situation under study including human and non-human elements and actors, organizational entities, and major debates and positions in discourse. This illustration of key situational elements, actors, and debates served to inform qualitative data collection and deepen data analysis.[142]

The ordered situational map (see Table 4-5) presents the major elements in the situation including human and nonhuman actors, discursive constructions, and sociopolitical, temporal/spatial, and other elements. Through the creation and revision of this map, the researcher identified these elements, explored the relationships between them, and used this understanding to inform a deeper analysis of the situation. The social worlds/arenas map (Figure 4-3) illustrates the major collective actors including their relative size, influence, and key relations. The development of this map enhanced qualitative data collection and analysis with an emphasis on areas for recommendations for policy, practice, and future research. The positional map (see Figure 4-4) plots out the major positions about a key issue of contention within discourse in the situation aligned with the study's underlying theoretical focus on patient involvement in decision-making. The aim of this map is to chart a core debate and the spectrum of positions revealed by the data and discursive elements in the situation. Although not typically included in results of publications using situational analysis, these maps are presented here to demonstrate rigorous and sound application of this method and to illustrate the relational ecology which guided the researcher's approach to qualitative inquiry in this study.

Table 4-5 Ordered Situational Map

Individual Human Elements or Actors	**Nonhuman Elements or Actors**	**Collective Human Elements or Actors**	**Implicated or Silent Elements or Actors**
Birthing person FOB/partner Family Community Primary HCPs Consulting/collaborating HCPs Doulas Childbirth educators Chiropractors, acupuncturists, and CAM providers	Research/scientific evidence Nature (physiologic processes) Media	Hospitals Healthcare institutions Professional organizations Insurance companies Birth-related social communities Breech birth training and educational groups	Fetus Public at-large
Discursive Constructions of Individual and/or Collective Human Actors	**Discursive Constructions of Nonhuman Actants**		
Social world constructions of: • obstetrics and medicine • midwifery • patient-provider relationships (and power dynamics) • interdisciplinary provider relationships • institutional-provider relationships	Childbirth v. "Motherbirth" Technocratic v. salutogenic "Acceptable" levels of risk Subjective interpretation of risks/benefits Fear of childbirth; distrust of medicine		
Political or Economic Elements	**Sociocultural or Symbolic Elements**	**Temporal Elements**	**Spatial Elements**
Government (state): • Laws and regulations Institutional regulations: • Credentialing and privileges • Guidelines and protocols Professional organizations: • Guidelines and recommendations • Accepted standards of care Insurance companies: • Malpractice coverage • Rates of payment for services to HCP and institution	Social norms and expectations Family background and beliefs Community beliefs Personal identity (race, religion, ethnicity, culture, roles)	Length of gestation COVID-19 pandemic Historical discourse of midwifery and obstetrics History of paternalism in medicine History of oppression and discrediting of women Rise of support for person-centered care and shared decision-making Changing professional recommendations for vaginal breech birth	Proximity to care (and integration into the HC system) Physical environment of care Regional differences • Access to care • Standards of care • Prevalence of birth options and provider types

• Covered services and providers for consumer (and disparities in coverage)		Increasing access to social media and global approaches to birth # of skilled vaginal breech birth providers Increased effort to decrease cesareans and overuse of routine interventions
Major issues or Debates	**Related Discourses**	**Practices as Elements**
Scope of practice of midwifery v. obstetrics Acceptable levels of risk • An individual pregnancy v. overall reproductive health (future pregnancies) • Mother v. fetus • Biomedical outcomes v. overall experience of care • Liability and responsibility (extent of support for patient autonomy) • Consumerism, paternalism, and shared-decision-making • Safety of vaginal breech birth v. cesarean	VBAC Homebirth Unassisted birth Cesarean by maternal request Patient "compliance" Health disparities Integration of care Feminism and reproductive rights Shared decision-making and person-centered care	External cephalic version Moxibustion Webster technique Spinning Babies® Other CAM

Figure 4-3 Social Worlds/Arenas Map

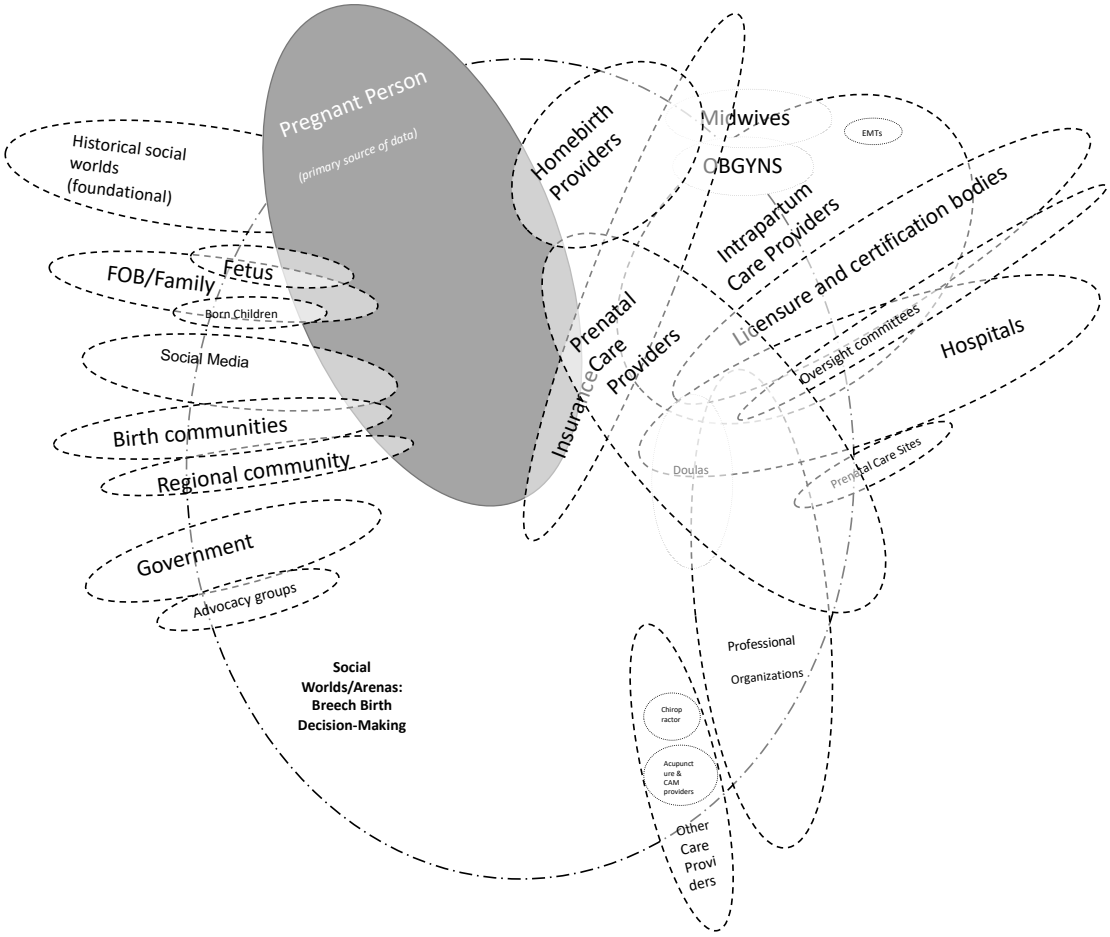
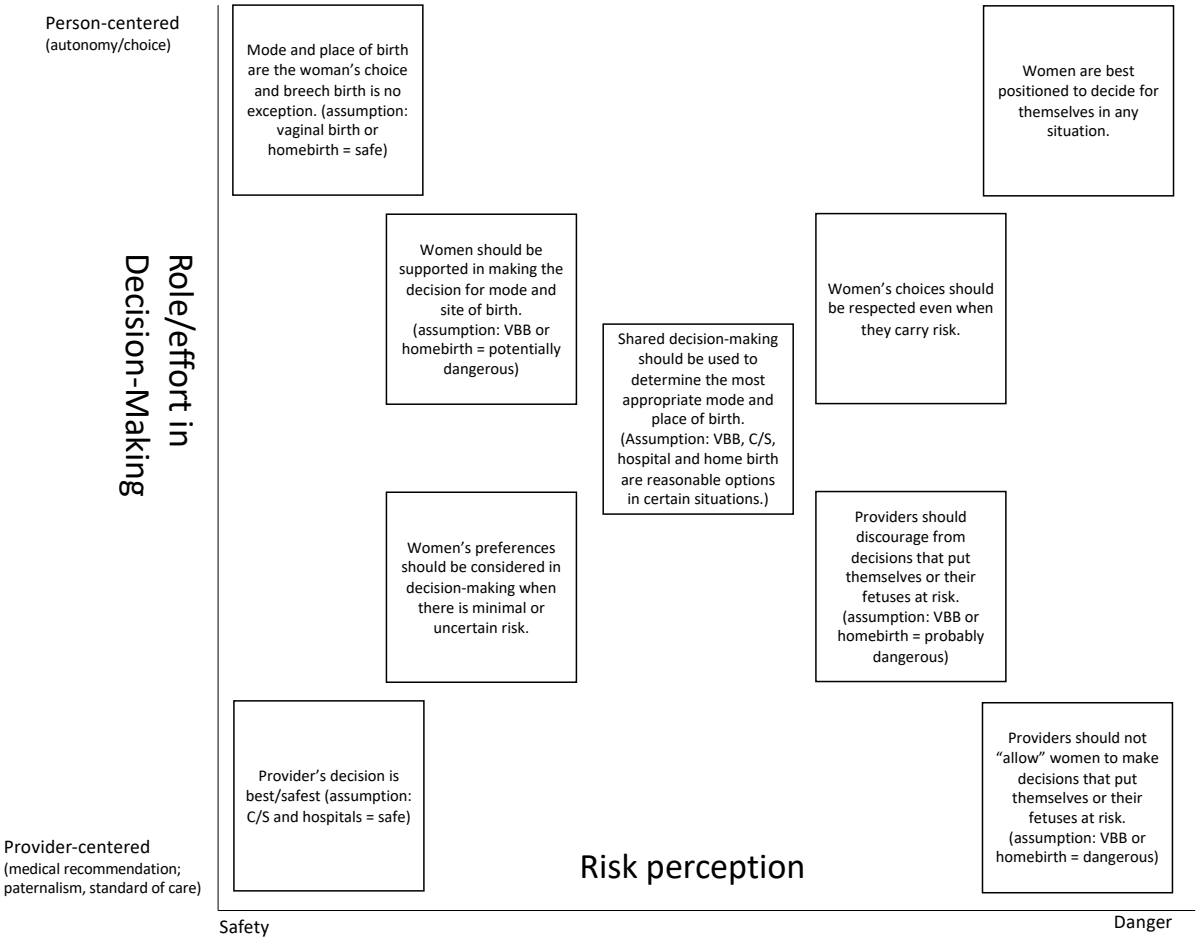


Figure 4-4 Positional Map



4.3 Analysis of aims

4.3.1 Aim 1: Explore experience of decision-making

The primary aim of this study was to explore the experience of decision-making of individuals who left the hospital system to pursue home breech birth. It was hypothesized that participants would share common experiences, decision-making patterns, and underlying values, needs, preferences, emotions, and perceptions of risk that influenced decision-making. While acknowledging the potential for similarities, this research does not seek to homogenize the experience of decision-making for home breech birth. Rather, this study embraces the complexity of human experience with the understanding that there are multiple constructed realities based on individuals' unique lived experiences, circumstances, and relationships.[100,142] However, to provide a basis for understanding this phenomenon, this section presents a

simplified, composite narrative followed by a detailed examination of specific themes that featured prominently in participants' experiences.

Study findings demonstrate the experience of decision-making for home breech birth was guided by underlying beliefs and values, personal philosophies about pregnancy and birth, and previous life experiences. These values and beliefs created a strong desire to experience "normal" (physiologic) birth and avoid cesarean. Participants viewed breech as a variant of normal and cesarean as unnecessary surgery. However, participants found they encountered substantial barriers to obtaining supportive care for planned vaginal breech birth in a hospital setting. They often put extraordinary effort into trying to turn the baby and find a willing and skilled hospital breech birth provider. However, ultimately, most participants perceived no choice other than cesarean within the hospital system and so felt forced to seek other care options to have a vaginal birth. The process of coping, gathering information, weighing options, navigating care pathways, and making an informed choice for home breech birth was complex, multifaceted, and often extremely challenging. For many, the experience of decision-making was profound and transformative, shaping participants views of themselves, their parenthood, and their future engagements with the medical system. Although this experience was multidimensional, dynamic, and nonlinear, a simplified illustration of these commonalities of experience is presented in Figure 4-5. The codebook of qualitative codes and themes is presented in Appendix D. Five primary themes were identified, each of which represents an important aspect of participants' experience of decision-making; these are summarized in Table 4-6. These themes are (1) valuing and trusting in normal birth, (2) being "backed into a corner," (3) asserting agency, (4) making an informed choice, and (5) drawing strength from the experience. Each theme is discussed in detail in the following sections.

Figure 4-5 Experience of Decision-Making for Home Breech Birth

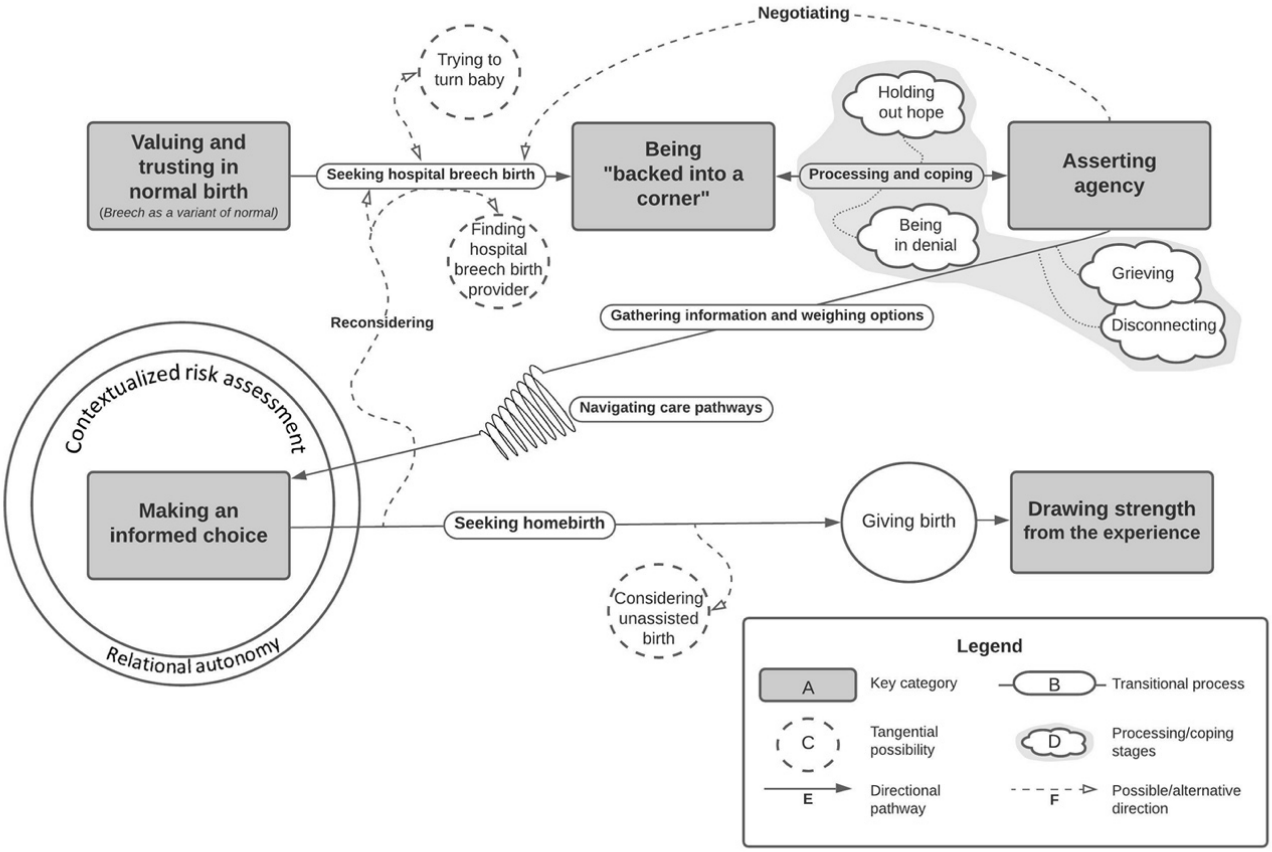


Table 4-6 Summary of Key Themes/Codes

Theme • Exemplar codes	**Datum Supporting the Theme** (Exemplar Participant Quote)	**Researcher's interpretive summary**
Valuing and trusting in normal birth • Wanting natural birth • Wanting to avoid cesarean • Viewing birth not as a medical event • Being healthy/normal (breech as a variant of normal) • Having confidence in one's ability to birth	[Breech] is just a variation of normal. (P4, P7, P11, P19, P20)	Underlying participant values and beliefs reflected a birth philosophy consistent with salutogenesis and **normalcy** of pregnancy and birth and a desire to experience "natural" childbirth and avoid unnecessary surgery.

Theme • Exemplar codes	**Datum Supporting the Theme** (Exemplar Participant Quote)	**Researcher's interpretive summary**
Being "backed into a corner" • Having no choice • Encountering barriers to agency • Interacting with health care provider(s) (decision-making encounters) • Negotiating or fighting for desired plan/care • Doing "everything possible" • Being pushed out of the system	How is that consent if you can't say no? (P18)	People felt "**cornered**," "vulnerable," and "hopeless" in interactions with health care providers and systems in which cesarean was presented as the only option for breech birth.
Asserting agency • Understanding there are options • Valuing informed consent • Trusting intuition • Doing it "my way" • Refusing interventions • Owning the outcomes	You don't just have to do what this guy in the white coat tells you to do. (P11)	Participants wanted **decisional autonomy** and opportunity for informed choice and felt empowered to find a "better way."
Making an informed choice • Processing the situation • Gathering information • Weighing pros/cons • Defining risk and safety • Navigating care pathways • Making/accepting a decision	I did weigh all the pros and cons, and… I feel like it was the best decision that I could have made for me and my baby. (P2)	Decision-making was a **multidimensional process** that involved processing and coping, gathering information, weighing options, navigating complex care pathways, and making and accepting a decision.
Drawing strength from the experience • Being transformed • Seeing the good • Losing faith in the medical system • Wanting to create change for others	It pretty much broke me open, in a way that was pretty. (P20)	This experience was extremely **impactful**, transforming participants' views of self, approach to parenting, and faith in the medical system and creating a strong drive to make change for others.

4.3.1.1 Valuing and trusting in normal birth: "Breech is just a variation of normal."

The motivation behind most participants' decisions was the value they placed on "normal" (vaginal, physiologic) birth, the corresponding drive to avoid cesarean, and the perception that normal breech birth was not possible within the hospital system. Participants had both a trust in and an appreciation of the normal process of labor and birth as important and meaningful life event rather than essentially a medical one. They also had a high degree of confidence in their ability to give birth and tended to value embodied knowledge and intuition over authoritative knowledge.[184]

> I wanted to have a natural birth. I wanted to have that experience … To me, birth is such a natural thing … I didn't want that surgery experience because to me that's not what birth was, and I knew that birth could be a beautiful thing and I didn't think that it would be that intimate if I would have had to have a surgery, so I wanted to avoid it at all costs. (Participant [P]6)

> A birth is just, it's like an everyday part of life. It's not a sickness … for the most part, it's not anything that should be treated as this emergency situation. (P5)

> I know that I can, I know my body can. I just had complete and utter faith in myself and my body and what I'm capable of. (P3)

The individuals in this study viewed themselves as healthy and normal, seeing breech presentation as a "variant of normal," not a high-risk condition. With this mindset, cesarean was considered both unnecessary and highly undesirable.

> I mean if there was some health reason, I would have [had a C-section], but he's just facing the wrong way … I just was not at peace with scheduling a surgery just because he's not in a position that the doctors want him to be in. (P18)

> Pregnancy is not a sickness or an affliction. It's a natural process … I didn't want to be automatically scheduling a surgery for something that was a natural process. I just wanted to be allowed to labor. (P4)

These underlying beliefs and values were often informed by previous life experiences such as prior births or familiarity with birth.

> I'm more natural. I like more natural things. I grew up on a farm, I've seen baby calves born all the time. I've seen, my mom had seven kids. I don't, I just knew that a natural birth can happen ... The more we learned in the [childbirth] class and the more I read online, the more videos I watched, the more I knew it was possible and I just felt like, well, if they can do it, then I can do it, and I want to do it. (P6)

Valuing and trusting in birth was a key factor in participants' decision to leave the hospital system in order to access care for a planned vaginal birth.

4.3.1.2 Being "backed into a corner": "How is that consent if you can't say no?"

As discussed below (see Section 4.3.2), many participants in this study shared that they would have strongly preferred to give birth in a hospital but were unable to access a provider supportive of a planned hospital vaginal breech birth. They felt their providers presented only one option (cesarean), leaving them to feel as if they had "no choice." The major barriers identified by participants limiting access to care for vaginal breech birth were a lack of skilled and willing breech birth attendants, financial considerations (due to lack of insurance coverage of home birth services), social pressure (including negative judgement of others, power dynamics of patient-provider relationships, and norms of patient compliance), and state and institutional policies and regulations restricting providers' scope of practice.

> [They said:] "You have to have a C-section – this is your only option." (P17)
>
> I was completely trapped. If I showed up at the hospital in labor, they were gonna section me. If I had a home birth, I was breaking the law. (P10)

Participants stated that decision-making interactions in which health care providers provided biased or incomplete counseling or did not include them in decision-making were also major barriers to the exercise of agency (see Section 2.1). Many participants shared that hospital-based care providers presented information about the risks of vaginal breech birth but not those associated with cesarean delivery. This perceived bias in counseling left them with the feeling that they did not have all the information necessary to make an informed choice.

> They say they want to answer my questions, but they're being super lopsided with the information they're giving me. They're giving me all these risks to giving birth breech, but they're not giving me all the risks that come with another C-section. (P3)
>
> That's what I try to do when I have to make decisions, have all the facts and then choose. If they don't give you the facts, I didn't have a choice. (P22)

Participants described not having sufficient access to or time with their health care providers to address their concerns. Even when they did have the opportunity to engage in discussion, participants felt their hospital-based care providers disapproved of their desire to explore other options. These interactions left participants feeling judged and unsupported.

> I think that if you could have more of a discussion with your doctor about it, would be a lot better, but they just don't have time for that or whatever. (P6)
>
> It basically shifted to, "You really don't have any decisions. This is what you have to do. Thinking anything besides that is just going to lead to your baby dying," essentially. It took at least the feeling of I had that decision, I had that choice, completely away. (P7)
>
> It was just quite a matter of fact, really. It wasn't really presented to me as, "This is now considered a breech birth, now these are your options." It was like, "Okay, so let's schedule

> your C-section." It was like that. I started to say, "Well, can I not just have this baby vaginally?" Then it started to feel a little bit like maybe I was being a little irresponsible. I felt a bit judged, to be honest … It was pretty upsetting really because I just left feeling really unsupported and confused. (P12)

Descriptions of decision-making encounters with homebirth care providers were remarkably different, in that these encounters were generally viewed positively as providing validation, information, and opportunity to engage in decision-making.

> When my doctor presented it as my choice, I felt more trust in him, and like in that I knew that he also like honored my opinion and my choices and everything. (P18)

Occasionally, participants noted that their hospital-based providers "hinted" towards other options, however this indirect communication was generally not well received.

> The doctor even hinted to me … "Well, if you come in and baby is already there, then you know, maybe we have no choice but to deliver breech" … Why would they even want me to risk that, having a breech baby and being in the car with her butt hanging out. Like I-- Because it wouldn't be on them. They would have no liability if something happened while I'm in the car on the way to the hospital. (P21)

Some participants tried to negotiate with their hospital-based providers, presenting research about vaginal breech birth, trying to convince them to "give them a chance" of a trial of labor, requesting compromises such as an unscheduled cesarean after the onset of spontaneous labor, or attempting to relieve their care providers of any responsibility or liability.

> I told him all I want is a chance. I had read enough at that point that I said, "I just want a trial. That's all I want. If it ends up being a C-section, it ends up being a C-section, but I just want a chance to try, and nobody else is giving me a chance to try." (P1)

> I'm like, "You don't even have to do anything, I can just do it." That's what I was thinking. I was like, "I will not hold you responsible, I will not sue you. I promise, I will sign that paper, if you have it, saying, I promise, I will not sue you if anything happens." But of course, that's not how it works. (P17)

Many went to great lengths to try and turn the baby into a cephalic presentation so they could have a vaginal birth in the hospital. For many participants, this included attempting a medical procedure of external cephalic version (ECV) to manually reposition the baby. Some underwent multiple ECV attempts or worked to obtain access to this procedure when not offered by their prenatal care providers. Participants shared that some prenatal care providers did not mention the possibility of ECV, while others stated that they were not eligible due to clinical conditions include late gestational age, low amniotic fluid levels, advanced cervical dilatation, prior uterine incision, or pre-existing medical or genetic conditions. The experience of ECV, especially for those that occurred in hospital settings, was generally perceived as negative among participants in this study and, when unsuccessful, often ended with additional pressure to schedule surgery.

> I started doing everything you could imagine. If you told me to do it, I would do it to get him to turn … We did all of these weird movements. I put peas on frozen peas on my belly. I did different essential oils. I did acupuncture and moxibustion. I did chiropractic … Looking back, there was nothing I didn't try. (P15)

> They had me inclined, and they had me hooked up to IVs and stuff already, because of the chance of going and actually needing to have a C-section then. I tried the version, he tried it three different times, and it was excruciating. It was the worst pain I have ever felt in my life. I've had a broken bone, my tendon was cut through, I had two natural births, one breech, and it was just absolutely horrible. He tried it three times. She wouldn't move. I went over the options again, but basically, he was like, "We need to schedule a C-section." That's what he said. I asked him even if there were other providers around that would potentially even let me go into labor and then see how it progressed. He was basically like, "No, this is not the way this works." (P7)

Participants perceived both external pressure from providers and time pressure, as they had at most a few weeks to process the situation, explore their options, and make a decision. Several participants shared that the act of scheduling surgery was very difficult for them to accept, as they were hopeful that their baby might change presentation prior to birth, and they wanted time to explore their options. Refusing to schedule was a way that participants were able to maintain hope and a sense of control over the situation. Many individuals reported feeling intensely pressured by their care providers to schedule surgery in advance, and some providers even scheduled surgery without obtaining consent.

> She was just very like, "We've got to schedule that right now" … and I was like, "Was there any reason why we can't wait, you know?" … I was very, very pressured, "You have to schedule – today!" (P15)

> My doctors were not listening to me. They kept shoving surgery down my throat. They scheduled me twice for surgery without my consent … I'd had enough of the abuse. (P3)

The importance of informed consent featured prominently in many participants' experiences as essential to respectful and ethical care. Several participants reported feeling "trapped," "frustrated," "coerced," and even "traumatized" by their experiences. The absence of opportunity to exercise autonomy in decision-making was viewed by participants as fundamentally disrespectful care.

> It's an injustice to women because they're not getting informed consent … There should always be informed consent. You should be able to know all the circumstances, everything like that, so you can make an educated choice … I mean, tell them the good and the bad and let them make an informed decision! … I think it all starts with informed consent and giving women a voice, not talking to them like they don't know what is good for them! (P19)

> I was so frustrated. I was like, "Who do I turn to? Nobody will listen to me. Why, why won't someone help me and let me be where I will feel safe?" (P21)

> I just felt, felt so disrespected in all of this as a human being, in terms of the choices that I was not provided, and the things that they were kind of trying to force down on me to make a decision for myself, which I knew were not the best decisions for me. (P2)

This feeling of being "backed into a corner" was extremely stressful and difficult for many individuals. For some, it even retriggered previous traumatic experiences.

> Having a breech baby is a unique kind of stress and fear. The only other time in my life where I felt so trapped and like I had no say over what happened to my body was during a sexual assault … There are some things that happened that just kind of like trigger that past assault. Like, even being told you have to have a C-section just because you've had a previous C-section, or because your baby is breech. How is that consent if you can't say no? (P18)

Ultimately unable to find care for vaginal birth within the hospital system, participants felt that they had no other choice than to seek other care options. Individuals in this study felt that planning for a home birth was the only way they could decline a cesarean, which they viewed as unnecessary surgery.

> I felt like I was "backed into a corner" and had no choice but to have a homebirth. (P11)

> If the other option besides homebirth is having a C-section forced on me, then I'm going to have a homebirth. (P1)

> There was no way in hell I was having a cesarean when breech is considered a normal birth. I knew I could birth her just fine. (P10)

Many individuals withheld this decision from their providers, fearing negative judgement or additional pressure. Among those who did communicate their intent, some participants reported that their providers resorted to actions which they perceived as threatening or coercive. The use of "scare tactics" or "bullying" to achieve compliance often led to a firmer resolve in participants to find alternative care.

> She gave me no other options and I didn't tell her I was thinking of any. Because I knew she would fear monger me, so I wouldn't have told her. (P15)

> The conversations started off, you know she was, I would cry, I would, I would cry. I didn't know, I was so, I didn't know what to do and I was so torn … but the, yeah, the messages she left were not nice at all. "You need to call me back!" she said, "You need to call me back because you are putting your baby at risk and your baby could die." (P21)

> [The midwife] used scare tactics and false information to try to scare me into a breech birth not being safe. Once they pulled the "dead baby card," I knew I needed to find another way. (P11)

As discussed in Section 4.3.2, some participants shared that following their decision to decline cesarean, providers terminated their care, leaving them without a provider to assist with postpartum and pediatric care. Searching for a care provider, some individuals felt "desperate" and even considered having an unassisted breech home birth (with no health care provider

present). Those who were able to find a breech birth provider sometimes had to travel far distances or even take up temporary residence in another state to obtain care. It was noted by several participants that the ability to access to supportive care for planned vaginal breech birth was a privilege that might not be accessible to individuals in more rural locations or those with lower levels of education or resources, raising concerns about health disparities in historically disadvantaged populations.

> I called like a week and a half after he was born … I wanted to get him circumcised … And she's like, "Um, we're not able to … I should let you know that you'll be receiving a letter in the mail saying that you are discharged as a patient." And I was like, "Oh really, why?" or whatever. "Well, you went against the doctor's recommendations, and we just felt like it was a liability." (P6)

> I felt if no one was going to help me, I may very well have to do it alone … It really was like a last resort kind of thing, like I literally had no choice. I was like, "Well if I want to have a vaginal birth, this is what I have to do."

> I feel really, really lucky, that we happened to be able to meet [breech birth provider], and we happened to be able to scrabble together the money to pay him, and for it to happen. A lot of women I know, a lot of families, might not have been able to do that, based on where they live and what resources they have. I find that really sad. (P12)

Finally, for some participants who were pregnant in 2020-2021, circumstances of increased risk, uncertainty, and restrictive hospital policies associated with the COVID-19 pandemic contributed to feeling "stuck" and unable to access desired care.

> COVID policies would not allow for a doula and my husband to be present [in the hospital] … COVID additionally exacerbated our decision to leave [the hospital system] because we had no childcare options. A handful of family members refused to come help, citing COVID-related concerns or restrictions, for my two other young kids. (P23)

4.3.1.3 Asserting agency: "You don't just have to do what this guy in the white coat tells you to do."

Participants in this study felt very strongly that they should have the ability to decide for themselves how and where they would plan to give birth. They understood that there were options other than those being presented to them by their care providers and wanted the opportunity to make an informed choice. There was an appreciation that to make a truly informed choice, they required information about the risks and benefits for all available options.

> With any provider, informed consent should have the risks and the benefits and the alternatives. And if it doesn't, then it's not informed consent. So, that's just pretty straightforward. (P13)

> I get to have a say in what happens … because I have to live with the consequences of what happens to my body. (P13)

> I have autonomy over my body and that, you know, it needs to be a life-threatening situation for me to be forced into major abdominal surgery. So that was really, you know my personal belief was that I call the shots here. Like, I say what's okay and what's not okay unless we are in a medical emergency, you know, and then I concede to the system. (P10)

Participants wanted to be heard, validated, and maintain some control during the labor and birth, ensuring that both their decisional and bodily autonomy were protected. Because they tended to value their own embodied knowledge and intuition over the authoritative knowledge of their care providers, they placed themselves at the center of the decision-making experience with providers at the periphery.

> I think just like having autonomy over your body is so important, in general, just for humans to feel empowered, and to feel grounded within themselves especially with birth, where you are so vulnerable. You need people that listen and hear you, and respect your decisions, and trust too that. There is an innate wisdom within you that is wiser, probably than – there's training, and there's studying, and there's education, but there's something magical about birth. It is a human experience, and it's ingrained in us. (P20)

> I feel autonomy and it's just so important in general in everyday life, but in birth something so sacred and brutal and beautiful and transcendent, I really believe that there should just be more trust placed in the birthing person. The provider should be there to assist, not dictate. (P5)

As such, participants were willing to break norms of patient compliance to decline (either explicitly or implicitly) provider recommendations or interventions. In doing so, they also acknowledged the uncertainty inherent in pregnancy and birth, accepted that no plan would eliminate risk, and willingly assumed responsibility for the decisions they made and potential associated outcomes.

> I was just being a very compliant patient at that point. So, I allowed them to schedule it, but I knew in my head, there was zero chance that I was going to be doing that. So, I was going along with protocol, but just out loud, not in my heart. (P14)

> Ultimately, it's your decision, and you can't hold anybody against, I mean you can't like hold anybody to that. So, like, if things went wrong, it's not like our midwives' fault or anybody. I mean we made this decision as a couple. I don't know, and I just liked, yeah, being able to make that decision and it was freeing to be able to make that decision, like I didn't like the feeling of, "Okay, you're having a C-section. Period." Like, why can't I have options? (P6)

4.3.1.4 Making an informed choice: "I did weigh all the pros and cons, and … I feel like it was the best decision that I could have made for me and my baby."

Following a diagnosis of breech presentation and learning that their desired birth was no longer obtainable, participants worked through complex stages to make an informed decision for their intended mode and site of birth. The temporal processes of decision-making were examined and

were found to be nonlinear and dynamic, continually evolving based on changing circumstances and new information. Although not universal among all participants, the process of making an informed choice commonly involved stages of (1) processing and coping, (2) gathering information, (3) weighing options, (4) navigating care pathways, and finally, (5) making and accepting a decision.

Processing and coping. Many participants initially struggled to process and cope with the situation, experiencing shock, denial, and grief. The experience of decision-making was difficult and deeply emotional for many participants, who described feeling "abandoned," "alone," "angry," "defeated," "depressed," "frustrated," "hopeless," "scared," "shocked," "stressed," "trapped," "traumatized," and "vulnerable." Many participants described "mourning" the loss of their ideal birth. Others refused to accept the situation and remained optimistic that the baby would turn into a cephalic position.

> The funny thing about breech, of course, is that your decision-making process is changing right up to the 11th hour because you're always thinking, "Maybe the baby will turn!" (P12)

> You have a dream: you want to deliver your baby naturally, you want to do all these things, you want to experience birth the way that we were designed to give birth. Then you're told you can't do that because not for emergency reasons … but purely because your baby is not in the position that they would like … that absolutely affects you for the rest of your life, because they just robbed you of the choice of how you wanted to birth your baby. (P19)

Some participants turned to family and friends or reached out to birth communities or social media groups for advice and support. For some, communicating about their situation created additional stress and perceived negative judgement, leading them to disconnect from others.

> I think the faster you find a community, the better. The Coalition for Breech Birth, and that other group on Facebook … super valuable. It made me feel seen, and heard, and justified in exploring my options. (P4)

> I shut off all my social media. I turned off my phone the last month of pregnancy because so many people, I had told people that he was breech and so I was just getting so many questions about, "Has he turned yet?" and "When's your cesarean?" and stuff like this. It was just like, I was processing my own fear and anxiety around it because, yes, I'm a first-time mom, I had this intuition that this was the right way to go and that my body could do it and I needed to trust it. Then you hear all these voices in the background and their own fear that they carry with it … I was just like, "I need to go in a hole, and I'll come out when I'm ready." (P20)

For many participants, processing and coping were the focus of a liminal phase in decision-making from which they emerged with a renewed vigor to explore their options.

> We didn't know what we were going to do. It was really horrible. I just needed to take, like, I think I took a week before, days where I was just like, "I don't want to even talk about this anymore." After that I took the time, I was bummed out, and super sad, and crying, and weepy, and just apologizing to [my baby] because I'm like, "I don't want her to feel like she's doing something wrong at all" and just being like, "Let's see what we can do." I just picked myself back up and I'm like, "All right. Enough crying about this. What can we actually do? What are the options?" (P5)

Gathering information. When they were ready, individuals sought out information to inform their decision-making. In a few instances, participants were able to get information about options for breech birth from their care providers, although many felt this information was biased, inaccurate, or incomplete. This lack information from health care providers created a loss of trust and drove many participants to seek information elsewhere.

> I think just knowing the risks and the benefits of both and having all the information was the most important thing for me in making that decision. I feel like most women would say that, too. (P17)

> There was no discussion about breech delivery or anything like that – just that she wasn't going to be doing it! So, I came home, and I did all my own research. (P19)

Common sources of information about breech birth options included online peer communities, breech birth videos, scientific literature, and general internet searches. A few participants stated that they had searched for evidence-based research but found existing literature on home breech birth insufficient. Anecdotes of others' breech births, the advice of complementary care providers such as doulas or chiropractors, and awareness of different approaches to breech birth in other countries also featured prominently as informational sources. The latter was especially common among participants who had previously lived abroad. Information gathering and knowledge acquisition and internalization were ongoing, dynamic processes responsive to evolving circumstances. Participants integrated or rejected information they gathered, incorporating embodied knowledge and intuition into their decision-making.

> I started looking at papers after papers, research, trying to figure out what all these, what it really meant … Looking at numbers, looking at data, looking at personal stories, looking at videos, all this stuff that's on the internet about breech birth. (P7)

> You know there's not a lot on like PubMed and Google Scholar on, you know, in the national databases, or even a Cochrane, on the safety of home breech birth. There's just not that much data out there. And so, honestly, I had to turn to a lot of YouTube videos. (P14)

> We also need to look at what other countries are doing … look at our C-section rate compared to everybody else … Our C-section rate is insanely high, and our infant/maternal mortality rate is not that great either. We need to do a lot better. That's why when I was researching breech births, I went to *other* medical journals. I wanted to see what other

> people are doing, because we don't have a very good track record, and we have a long way to go. (P19)
>
> Based on a dated study with flawed data – completely debunked, that study! – the hospitals based their policies on this! How can I rely on that to make a life-altering decision for myself? I just didn't feel comfortable at all after that research … that's why I pursued my own path … I felt in my gut that the options I was given were not good enough. I did my own research to determine if this is truly the safest option I have. (P2)

Weighing options. In this phase of decision-making, participants evaluated available options to determine the "best" plan for obtaining safe and respectful care for their labor and birth. To do so, they assessed the pros and cons of each available alternative based on subjective perceptions of risks and benefits in the context of what was meaningful and important to them in their lives. Participants defined "safety" to extend beyond protection against morbidity and mortality, incorporating safeguards against threats to personal needs and values (e.g., autonomy, bodily integrity, dignity); overall maternal, neonatal, and familial health (including psychological and emotional safety); and access to quality care. Perceived elements of safety and associated risks are presented in Table 4-7.

Table 4-7 Perceived Elements of Safety and Associated Risks

Safety	**Risk**
Personal needs and values	
Agency and autonomy	Powerlessness Coercion Restrictive policies (i.e., restrictions on mobility or food in labor, difficulty obtaining hospital discharge) Threats to implementation of their decisions Being given "no choice" / medical paternalism Actions which are not aligned with their desired care
Bodily integrity	Non-consensual actions Invasive procedures
Dignity, privacy, and intimacy	Disrespectful care Exposure of the body Presence of strangers
Knowledge	Ignorance, confusion, or uncertainty Misinformation or biased information
Care in alignment with birth philosophy (i.e., support for physiologic birth)	Unnecessary interventions Overmedicalization of physiologic processes Mistrust of the female body and women's ability to give birth Scheduled or induced birth (the absence of spontaneous labor) Disruptions to physiologic labor, birth, transition to extrauterine life, maternal-newborn bonding, breastfeeding, and seeding of the neonatal microbiome
Overall health and wellbeing	
Physical wellbeing	Medical risk factors

	Biomedical complications (maternal and neonatal morbidity and mortality) Pain (and effects of pain medication) Negative effects on future pregnancies (i.e., increased risks associated with uterine incision)
Psychological, emotional, and spiritual wellbeing	Fear and anxiety Depression Retraumatization or reliving prior negative experiences Feeling unheard, invalidated, or unsupported Threats to perceptions of being a "good mother" Abandonment Isolation (separation from baby, partner, or support persons) Situational uncertainty
Familial wellbeing	Physical limitations in caring for children (i.e., postpartum recovery) Lack of childcare or familial support
Economic wellbeing	Financial costs of care Lack of insurance coverage
Access to quality care	
Access to healthcare resources	Lack of access to: • Skilled provider(s) • Technology (for monitoring fetal wellbeing) • Trained staff • Medications • Emergency care and equipment Lack of proximity to care
Provider qualifications, skills, and experience	Untrained, unskilled, or inexperienced provider Provider reluctance, uncertainty, or anxiety Unlicensed, uncertified, or unregulated provider
Provider communication and trust	Unknown/unfamiliar provider(s) Ineffective patient-provider communication Insufficient access to/time with care provider Lack of mutual trust/respect in patient-provider relationship Provider incentives not aligned with person-centered care Disagreement with provider's recommendation Uncertainty (lack of plan, clarity, or transparency)
Integrated system of care	Discontinuity of care Transferring to a provider or site of care that is unsupportive of the birthing person's choices/preferences Being discharged from care or having care withdrawn
Comfortable care environment	Unfamiliar or uncomfortable environment Non-preferred birth setting

There was a temporal component of decision-making that extended to both past and future pregnancies. For example, participants who had birth experiences with good outcomes had high levels of confidence in their ability to give birth again, and those who had previously experienced cesarean, trauma, or negative encounters with the medical system were strongly

motivated to avoid similar experiences. Participants also tended to look beyond the current pregnancy and potential short-term complications, focusing instead on long-term health outcomes and risks to future pregnancies.

> I always knew I could birth my baby. I always had that gut instinct. I've done it five times. I knew I could do it. I knew I could have big babies. I was never afraid of doing it. (P17)

> Everything about my prior birth had gone completely out of my hands … I had a surprise C-section [for breech presentation]. I ended up not being able to breastfeed, I was in severe pain and on multiple prescription pain meds from surgery, I didn't feel like myself. I was unable to move for weeks. I didn't even feel like I gave birth or that my baby was even my baby, because I was so far removed from the process. I did not want that again and I was willing to do anything to have a vaginal birth my second time, regardless of the baby's position. (P11)

> Well, for me it's about long-term sequalae, thinking not about the actual birth itself, but you know, future babies, you know, my long-term health, the baby's long-term health, our breastfeeding journey, like all of these other aspects that you know would be affected by a, um, elective C-section. (P14)

As discussed in Section 4.3.1.1, the individuals in this study generally had strong preferences for birth and viewed giving birth as an important life event. As such, they highly valued the experience of childbirth, not just the outcome. In essence, the safety of their baby was an extremely high priority (often the highest priority), but it was not the only thing that mattered. Psychological and emotional health, dignity, autonomy (decisional and bodily), and bodily integrity were viewed as essential components of overall wellbeing and safety.

> I think the most important thing in all of this is to keep the mother center, mother and baby center of it all, not just the baby. I feel like they focus only on the baby, less on the mother. At least that's the feeling I got through my experience with both hospitals. It was all about baby's health, and mother's health only for the baby, not for the mother … Like, can you care about me a little here? (P2)

> So those two things I think are the biggest things to understand, you know, weighing the needs of the mother against the severity of the situation. And in order to wipe out the needs of the mom, in order to just push those off the table, there has to be some sort of life-or-death situation. Otherwise, you know, what the heck? (P10)

> There's that famous saying, "Oh, as long as you're safe and baby's safe and healthy!" I'm like, "That's a no-brainer, of course, everybody wants that, but what about emotional stability? What about the postpartum period of having to navigate not only being a new parent … plus having to mitigate what you wanted to happen versus what actually happened? What about feeling like you've lost control?" (P5)

This broad understanding of safety featured prominently as the key factor driving decision-making for breech birth. Overall, participants in this study felt that the hospital environment provided the greatest safety net for biomedical health outcomes. However, there were some participants who specifically choose a homebirth due to concerns about safety within the hospital

system. There were also multiple participants who had experienced previous precipitous births and felt that a planned homebirth ensured more timely access to care in case of an emergency.

> I would have stayed with the hospital if they had competent providers trained to deliver breech vaginally. My personal belief is that the hospital should be the safest place to have a baby in case something went wrong. (P18)

> [The state I live in] has one of the worst rates of maternal death. It's even higher if you're a woman of color. So, it was just like, "Why would I want to be in the hospital?" It doesn't seem like these doctors are listening to moms at all. (P8)

> [I] finally chose planned home birth because of the emergency situation, like in case there was one. (P9)

Several participants reported experiencing negative judgement from health care providers and others for not being "responsible" or "good" parents by embracing this larger understanding of safety. Some participants articulated that minimizing a potential but unlikely risk to their unborn did not outweigh almost certain risks to the mother, such experiencing trauma or being unable to care for existing children.

> I felt like I was getting bullied and punished and made to feel like I was putting my baby's life at risk, but the reality of it is, it's all a risk either way. I have my firstborn to think about. The complications for a C-section would have been way more riskier for me … I feel like they get so focused. They pinpoint your vulnerability by telling you your baby is going to die, but they don't discuss with you the mental, emotional, and physical trauma of forcing a C-section on someone who didn't really want that … People mean well when they say, "But, you got your baby out of it!" But at the same time, it's like, "Okay, but at what cost?" That was unnecessary surgery and stuff, too, and feeling helpless and emotional and mental trauma. Because you're rewarded with a baby at the end of it, the feelings aren't negated from having that happen to you. (P3)

> We didn't take this lightly. We really made what I think is a very informed decision, as I think it was really important for me to try to avoid having a C-section because we were living in [City], and I had no family … no support system. And I just kept thinking, "How am I going to take care of my other kids?" … I knew that it was going to be a huge burden if I had to be recovering from surgery. (P13)

To make an informed decision, participants weighed their options and sought to balance subjective interpretations of risk against their needs, preferences, priorities. In the end, participants in this study concluded that pursuing a vaginal breech birth at home was the best of the available alternatives.

> I literally went back and forth, like I measured all of my options, the pros and cons of everything. So, and that's, yeah, that's where I ended up. (P18)

> Literally, I wrote out the pros and cons of each type of birth, and I just kept adding to that list until I found which cons could we handle, is how I basically ended up choosing. (P9)

> I'm going to birth in the way that's going to be the safest for me and the best for me and my baby. End of story. (P13)

> I just wish more women were aware of the other options. I wish that more women felt more empowered to make that decision and not feel so scared, not feel so to trapped by the system, or feel that that's the only safe option. I personally just found it hilarious that people thought I was being so brave. Actually, I thought I would be more brave to stay within the hospital. I actually took the safer option. (P2)

Navigating care pathways. Finding a care provider for breech birth proved to be a complex process involving navigating through different care pathways. This component of the experience of decision-making was especially dynamic and circuitous. As discussed in Section 4.1.4, participants often transitioned across different provider types and practice models to obtain desired care. For example, many participants started out in one type of practice (such as OBGYN, collaborative physician/midwifery, or hospital-based or birth center midwifery practice) and then switched to a new practice or provider after diagnosis of breech presentation. In a small number of cases, care providers did offer care at multiple sites of birth, such as home and birth center or hospital, so individuals were able to adjust their intended sites of birth without changing providers. There were also temporary shifts in care pathways. For example, some participants were funneled into the hospital system temporarily when they were "risked out" of birth center practices and seeking a new care provider. Individuals also transferred care temporarily for external cephalic version or surgical consultation. In a few instances, participants reengaged with their original prenatal care providers to assess and manage postpartum complications. However, as discussed in Section 4.3.2.2, other participants were discharged from their previous providers' practices after making the decision to pursue home breech birth.

Several participants also explored multiple care pathways such as different birth settings and providers simultaneously, sometimes due to indecision and other times with clear intention not to continue on that pathway until the time of birth. For example, there were cases in which participants were in liminal state where they were receiving care from multiple providers (or none at all) for brief periods of time while they explored their options. In other instances, participants intentionally sought out care from provider that was close in proximity or covered under insurance, even though they were not planning on giving birth under that provider's care. For example, multiple participants stated they had received care at a practice where they could obtain convenient or affordable prenatal labs or ultrasounds while intending to give birth with a different provider.

> When we first were looking for providers, I was really hoping to have a midwife and an OB that would work together. I wanted a home birth, but I also wanted the option to be at the hospital if we needed to. I liked that flexibility because how would I know, maybe I

> would switch, change my mind, and I didn't want to be backed into it. That's what I was looking for. I went for a midwife that does home birth, but she works with an OB at the hospital, and I established care with both of them so that I could ask questions in either way any time during the pregnancy. (P4)

> We met with [a homebirth midwife] and I was seeing her, and I'm also seeing the OB-GYN to offset the cost of the labs because my insurance would cover it. (P8)

> I did call back to The Farm in Tennessee, and I was totally going to get on a plane and fly there, because I felt more confident that they knew what was going on … Then, right before I was supposed to get on the plane, the day before, my water broke. (P1)

In addition to established models of care delivery in home, birth center, or hospital settings, some participants explored alternatives such as unassisted home birth or "showing up pushing" in labor with the intent to refuse cesarean. Notably, none of the participants in this study intentionally planned for these options, citing concerns of safety in the absence of a skilled breech birth attendant. There were, however, a few participants who unintentionally experienced unassisted homebirth, most often due to precipitous birth before the birth attendant arrived.

> There's a third option a lot of people like to do, which is just come into labor pushing. They say, maybe pretend like you don't know that they're breech or something and just kind of like go in there in a haphazardly fashion and hope that by the time you get into a room, you're pushing. But, I mean, I saw a lot of horror stories where people literally like shoved a baby back up and tied them to the thing and whisked them off to the C-section and like don't even have them sign the forms and all that stuff, so I definitely wasn't gonna do that! (P11)

> We didn't not have time to make this choice, it just was what happened. Unassisted home breech birth. (P9)

Key pivotal moments between care pathways were diagnosis of breech presentation, external cephalic version, shifts in financial situation or insurance coverage, moments of deep reflection, and changes in pregnancy-related or medical conditions. Care pathways also shifted based on access to care providers, such as meeting (and feeling comfortable with) a new care provider or being dismissed or denied care. Decision-making encounters perceived as coercive or disrespectful were also a commonly cited impetus for leaving a provider, as were those that created a loss of trust in a provider such as interventions in the absence of consent.

> I was already so close to being, like, "Okay, I'm gonna have to break down and go have a C-section." And it really hit me at that point, how much I didn't want that to happen, you know, like I'd known all along that wasn't my ideal plan, but … when all of my options were taken away, and that was all that was left on the table for me, I realized I was heartbroken that that was going to be the way I gave birth to my son. And so, when [the homebirth midwife] came through … I paused for a moment, and then I just knew it was meant to be. (P15)

> I felt really bad just spending that type of money on myself, and then it was when the tax return came, and, you know, it was a couple weeks until I was due, and I'm starting to get

> nervous … and I was like, [to my husband:] "Do you care if I take this money and buy the home birth?" (P16)
>
> [My doctors] didn't trust my dates, even though I had been charting, so I knew exactly within 24 hours when he was conceived. They told me that I was 2 weeks off, so they wanted to actually schedule his C-section for 40 weeks in their mind, but 38 weeks by my charting. So, that prompted me to start looking. (P1)
>
> The OB had a strict protocol that included episiotomy and gave me a 'stretch and sweep' without my consent, so I left his care and found a homebirth midwife. (P14)

Making and accepting a decision. After processing and coping, gathering information, weighing options, and navigating care pathways, participants were faced with the process of actually making, and accepting, a decision for their intended mode and site of birth. Having done so, they often sought to justify their decision-making process to themselves and others. Participants felt strongly about their right to make the decision that they felt was best for them, even when this meant having to face negative judgement. Universally, they accepted responsibility for making this decision, as well as the unknowability of the outcome.

> There's so much that I've looked into. It wasn't just some something that I was like, "Oh, okay, I'll just do this. I have no clue or anything about it." You know? I really feel like I did my research. (P21)
>
> To everyone else there, it was just a C-section. "Why won't you just to do your C-section?" But you know, to me it was looking at the science, like, making an evidence-based decision. An evidence-based decision versus a liability-based decision. (P14)
>
> Even my family members, my husband's side, it's like they still are very much like, "You risked the life of your child because of your decision." I said, "No, I made a decision that was safer for me and my child." (P7)
>
> Absolutely, there is a risk with me doing a VBAC breech homebirth, but the risk was higher for me to go to the hospital. And that's why informed consent is so important, because there is always a risk. Whenever there is a choice, there is always a risk, but where the problem lies is when we don't tell people what these risks are, and it's only their decision for them to make. (P19)
>
> I feel like you got to take your own risks into consideration, and you decide what's best for you. (P16)
>
> I think I would ultimately just blame myself for it [if something bad happened], because it was ultimately my decision (*pause*), which, is a good thing – at least I had a decision. (P9)

For some participants, there was a clear turning point, a specific moment when they made their final decision. Other participants felt as if they had a made a decision but still reassessed the situation, reexamined their rationale, or reconsidered their options. There were a few participants decided to "stay open" and opted not to decide or defer decision until later. In several cases, participants had not made a final decision until they were in labor. Sometimes, even after making

a decision, evolving circumstances made their decision unactionable, such as a provider who was unavailable or a precipitous labor and birth.

> So, we met with [the home birth providers] and … we were like, "Okay, we're doing this!" We all were on board, and we were just so fast. You know here we were having this hospital birth, and then all sudden … it was like a switch, like, "Okay, this is happening!" but we felt really peaceful about it. (P6)

> It wasn't like if I had just been hardline, like, "I'm going to have a vaginal birth, whatever happens." It could have ended up being really, I don't know, a misguided decision. I wasn't tied to it to the point where I was going to abandon all reason and risk assessment. It was like, "Okay, this is where we are now. Can we still do it? This is where we are now, can we still do it?" Eventually, things managed to fall into place where it was possible. (P12)

> I was sort of in limbo, trying to find a provider who would assist a VBAC breech. I had two prenatal visits with a midwife but did not end up hiring her for the birth in time, mostly because my husband was not on board with home birth. I ended up going back to the hospital to deliver via C-section in the end. (P18)

On reflection, participants felt satisfied with their decision to leave the hospital system to pursue a home breech birth, and they were grateful that they had the opportunity to be able to make an informed choice.

> I did weigh all the pros and cons, and this is what I came up with, and I felt good about my decision. (P7)

4.3.1.5 Drawing strength: "It pretty much broke me open, in a way that was pretty."

This final theme captures the sentiment shared by many participants that the experience of decision-making for home breech birth was transformational. The individuals in this study highly valued their birth experiences and placed great import on the care they received leading up to and during labor and birth. Participants also recognized the importance of the experience of decision-making and the ways in which it created profound and lasting effects. Specifically, this experience led many participants to view themselves and their decisional capacity differently.

> Looking back, I really love the story. It pretty much broke me open, in a way that was pretty. I definitely learned a lot from the experience and from the birth itself … I feel like everything in my world is probably shifted and changed in a way. (P20)

> It totally transformed like just so many aspects of me. I don't even know who I was before that, really, I mean, I just I feel like with every baby you, kind of, I mean, at least with me, you kind of learn things along the way. But it was just something about that whole process of really being able to advocate for myself and stand up for myself and know what I want and what I don't want and putting, getting it into my hands and all that stuff. It just, um, it put it all into perspective for me that, like, I can have that control in other aspects of my life, too. (P11)

> Because that is a really important thing: The birth of a woman's child is something she will forever remember. The way you make a woman feel when she's delivering her child, that is forever … that absolutely affects you for the rest of your life. (P19)

Overwhelmingly, participants in this study felt positively about their experiences of giving birth, even to the extent of idealizing the birth experience. For example, participants frequently described their births as "easy," "gentle," or "beautiful." When present, complications were often dismissed as tangential or insignificant, minimizing what could potentially be viewed as extremely negative, even traumatic situations such as postpartum transfer requiring surgical intervention. For many participants, experiencing complications did not appear to negatively affect their positive perception of their decision.

> It's the most beautiful, and they're all so well trained. And, like the windows were open and there was this beautiful October breeze coming through the windows and you could hear little critters outside chirping, and it was just it's almost like a fairy tale. It was so amazing, it sounds unreal. (P15)

> It was a great home birth. I'm so glad I made that decision. We're so glad. But like, you know, the afterwards … I was just thankful for what we did have, and that there was no major emergency. I just had a placenta stuck in me for hours and hours (*laughs*). (P6)

> I feel really good about my decision. I feel so grateful that it was able to happen that way. Even with the tear, even with [the baby] having trouble with her shoulder for a month or so, it still felt like it happened the way it needed to happen. It felt right. It felt supported, which I think was above all most important. (P5)

Similarly, despite describing the experience of decision-making for breech birth as extremely stressful and difficult, looking back, participants focused on drawing strength from the experience. For some, the stress of the experience or negative feelings of being "abandoned" by care providers created emotional wounds. For others, especially participants with prior birth trauma, the experience was empowering, even "healing." Many participants shared that this experience increased their confidence in themselves and shaped their approach to parenting and relationship with their children.

> I think there's going to be lasting effects … The first couple of weeks, it felt traumatic. It would make me cry. I think I was still processing how it all happened … There was some good things that came out of it, and so I'm hoping really how it changes me is that I can draw strength from it. Knowing that it was a crazy, crazy experience, and we got through it, and we have [our son] and now we're on our journey. I wouldn't change anything. (P20)

> It was so empowering. It really, it was validating it … and it reinforced what was possible, just in case I didn't know it before. (P14)

> I feel more confident in my own ability. I feel like I can make good decisions. I felt like it was a good decision … I feel more comfortable and confident. Because of that one decision, I have now hopefully changed other people's lives as well. Like my daughter and the way that she's going to perceive birth, the way that my son was delivered, and, later, the health of him. (P7)

> Of course, they gave me the option to go to the hospital. They gave me the option to have a, what's called, a gentle C-section, but I told them, "No, I want to have the birth I wanted."

> I needed it, really, to kind of get over my last experience. I needed some healing from that too. I knew I could do it. I knew my midwives were capable of helping me, and I felt very much at peace with my decision. My husband, he was 100% on my side. He's like, "You got this girl, we can do it." I just birthed him in my bed, and it was fine (*laughs*). (P17)

In some cases, this experience also had a profound impact in how participants approached health care. For some, it led to a deeper appreciation of the dynamics of patient-provider relationships. In others, this shift extended to a distrust of medical providers or even loss of faith in the medical system at large. Participants who reported being "dropped" by their health care providers expressed this experience discouraged them from future interactions with medical providers; whereas the few providers who expressed acceptance of participants' decisions, did not discontinue care, and expressed ongoing concern positively affected participants' views of the medical system. For some participants, the experience of decision-making changed the ways in which they sought future care for themselves and their families.

> We trust our healthcare professionals. We trust them implicitly often. It is coercive, and it is a type of bullying to constantly tell somebody something that's maybe a half truth. It doesn't have to be malicious intent, but if it's coming from a place where power dynamics are clearly not equal, then yes, it's not great. (P5)

> I kind of look more negative, honestly, towards the doctors and towards medical professionals in that setup, because it's so much less personal, whereas I definitely trusted them so much more with myself … I felt like I was in better hands going to a hospital or going to a birth center. I don't think that way at all anymore … Up until that instance, I don't think I'd had really any issues. I trusted doctors. I trusted their expertise. I knew they had training. I very much held them up on a pedestal and said, "They know what they're doing, they have the training, the expertise." It was up until that point that I lost that. (P7)

> When I go to regular doctor's appointment, like, I'm always just like in my head like questioning everything and definitely not as trusting. (P16)

> It just kind of put everything into perspective for me … it completely changed that whole aspect of just me being a mom and like taking everything internally and analyzing it before I make a final choice or even make an opinion or have an opinion about something. I want to take charge of what I believe, and what I know to be a fact, and I want to do the research and learn it for myself. So, that's something that really started with that, I would say, is kind of been the launching pad I guess for that kind of mindset for me. (P11)

> If I didn't find that OB at the end, I totally would have been totally like turned off on hospitals, but thankfully, I felt like that last experience with her doing the ECV and like how good she made my experience like that helped restore my faith in them a little bit, you know. The first one was so bad that I would have been happy to never step foot in a hospital again after that. (P16)

Despite reflecting positively on the outcome of their experience, participants were motivated to participate in this study with the hope that by sharing their story, they might protect others from being placed in a similar situation. Having gone through this experience, participants recognized

the challenges in obtaining care for vaginal breech birth and pointed to flaws in the health care system that deny pregnant and birthing persons opportunity for informed choice.

> I wish that things would change for other women, because I would never want them to experience what I experienced. (P17)
>
> We're just failing women because we're not giving them the choice. (P17)
>
> Mandatory C-sections for breech is cruel, plain and simple. It's not selfish to want a choice. There needs to be more options for mothers. (P18)

The participants in this study were eager to share their stories with the hope that doing so might create better opportunities for others. Many participants shared the sentiment that, if nothing else, they just wanted other individuals with breech pregnancies to understand that they have a choice and, if at all possible, to expand access to those options.

> It is really sad that so many women are in my position and don't get the help they need and end up getting their baby cut out of them unnecessarily. It is so frustrating that this is even an issue. I'd love to be a part of the change. I will advocate for this however I can. I'm willing to share my experience and trauma to help others. I hope this research leads to a better support system for us all, and that I never feel that helpless again … Nobody should have to feel like they don't have a say in what's going to happen to themself and their baby and they don't have options. (P3)

4.3.1.6 Recommendations to improve care

Participants were eager to offer recommendations to improve the quality of perinatal care for decision-making for breech birth. These recommendations were focused on increasing access to (1) respectful, person-centered care that facilitates informed choice; and (2) skilled breech birth providers, especially in hospital settings. As one participant succinctly put it:

> Women should have more choices and more educated, highly skilled individuals to give them those choices. (P7)

The individuals in this study wanted to be involved in decision-making, feel heard and supported, and have their autonomy respected. As discussed in Section 4.3.1.2, many participants also felt that their ability exercise informed choice was inhibited by the lack of complete, evidence-based information.

> I've never been a person who likes to make decisions out of fear, I want to make them out of good facts. (P4)
>
> When we asked about a vaginal birth, it was more just like, "No, that's risky." … The [homebirth] midwives explained everything, and then you felt like you had a choice, and when you said no, you knew what you were saying no to. Or if you said yes, you knew what you were saying yes to. Where with the doctor, you don't even really even, we didn't have an option, it was just like – you're having a C-section. (P6)

Participants frequently voiced how the hospital system offered a "one size fits all" model of care, whereas they wanted individualized care that incorporated their preferences and unique risk factors. The lack of flexibility and willingness to accommodate patient's preferences was a major impetus for participants to leave the hospital system.

> Everybody I contacted was still leaning towards a C-section for me, even though I had already had two babies vaginally, breech … I don't want to have a major surgery for something that I've done twice successfully. It doesn't make sense to me. (P1)

> When it comes down to it, essentially, it's not all women, but some women have strong instincts about how they want their birth to go, and I think that needs to be factored into the medical system. (P12)

> If we give people the option and the respect that they deserve, then they'll choose a safe environment. Right now, we don't have that, and we need to shed light on that. The fact that women feel like they can't be respected or can't have the choices that they want at the hospital and so they're choosing to give birth at home even though it's not ideal – and sometimes unassisted. We could really go a long way to make it safer for babies and women. (P4)

Many participants noted how "minor" requests such as being able to drink, ambulate, or wear their own clothes in labor were not permitted in the hospital. These aspects of the birth experience were important to participants' perceived ability to maintain some control over their birth and their bodies. Whereas, not having the ability to control these aspects of the birth experience was seen as fundamentally disempowering.

> Having a birth plan, you are handing it over and you're saying … "I need you to respect my choices." … Even if it's as simple as wearing your own clothes or just moving freely, the tiniest little things, those are very important because you're validating that mother … It's about a mutual respect and not stealing that woman's power … They can't treat women like they're just specimen or just the patient. They're much more than that, and how they treat that woman and how that woman gives birth and is validated will change her for the rest of her life. (P19)

Inflexibility of providers regarding the need for scheduled cesarean was a similar issue for several participants in this study. Several participants stated that had their care providers been willing to offer them an unscheduled cesarean after the onset of labor, they would have felt more comfortable with a planned cesarean.

> There's just a lot like that was going on in my head, but, I mean, the most important thing to me was I wanted my baby to be ready to come out. Like I was going, "I was not going to schedule that C-section." I was going to die on that hill. I'm like, "I'm not scheduling! If I have to have a C-section, whatever, but I am going to go into labor first!" (P18)

In addition to having more opportunities for informed choice, participants advocated for increased provider training and access to hospital-based care for planned vaginal breech birth.

Where providers do not have the skills to offer care for ECV or vaginal breech birth, participants felt strongly that providers should give resources for more information and provide a referral.

> Women in general need more access to providers who are competent in delivering a breech baby. (P13)
>
> They should have that training and that skill set so that they can offer more choices and then leave it up to the women with that knowledge base to decide for themselves. (P7)
>
> Ideally, doctors would go back and get educated on breech birth … Even if they're not trained to handle those, they could at least refer you to somebody who could, or be a little bit more forthcoming in the options that there are providers that exist out there. (P3)
>
> The doctor should have told me, "Okay. I cannot turn it, because I don't have the capacities, but maybe I can give you numbers of doctors who can … Then you can say, "Okay, I have all this information now, and I can figure out." But they don't … they just say, "Okay, let's schedule [a cesarean]." That's it. (P22)

Practical recommendations to increase informed decision-making, person-centered care, and access to skilled breech birth attendants are discussed further in Chapter 5.

4.3.2 Aim 2: Assess preferences for mode and site of birth and access to care

Participants' preferences for mode and site of breech birth and perceived access to care are reported in Table 4-8. For this aim, quantitative data were integrated with open-ended survey responses and interview data to present a deeper understanding.

Table 4-8 Access to care and birth preferences (from survey) (N=25)

Criteria	**n (%)**
Access to care with hospital-based provider	
Was offered external cephalic version	
Yes	19 (76.0)
No	4 (16.0)
Not sure	2 (8.0)
Was offered care for planned vaginal breech birth in the hospital	
Yes	0 (0.0)
No	24 (96.0)
Not sure	1 (4.0)
Was provided a referral for planned vaginal breech birth *(N=24)*	
Yes	4 (16.7)
No	19 (79.2)
Not sure	1 (4.2)
Would have opted for planned hospital birth if able to access supportive care for vaginal breech birth in a hospital setting *(N=17; only visible to participants who replied "no" or "not sure" to having access to supportive care for a planned vaginal birth in a hospital setting)*	
Yes	12 (70.6)

Criteria	n (%)
No	1 (5.9)
Not sure	4 (23.5)
Felt given the opportunity to make an informed choice	
Yes	5 (20.0)
No	16 (64.0)
Not sure	4 (16.0)
Felt threatened or coerced into having a cesarean	
Yes	17 (68.0)
No	3 (12.0)
Not sure	5 (20.0)
Other access to care	
Had access to supportive care for a planned vaginal birth in a homebirth setting	
Yes	18 (72.0)
No	2 (8.0)
Not sure	5 (20.0)
Considered giving birth at home unassisted	
Yes	13 (52.0)
No	12 (48.0)
Not sure	0 (0.0)

Preferences for mode and site of birth. All participants in this study shared a strong preference for vaginal birth and were motivated by the desire to avoid cesarean. The majority of participants (n=12/17, 70.6%) shared that they would have preferred a hospital birth if they could have gotten supportive care for planned vaginal breech birth in that setting. Several participants shared that they would have preferred to give birth in the hospital because they felt "safer" in this setting "just in case." This was especially common among those who had experienced precipitous births who might not have sufficient time to change locations in labor.

> I actually think my husband and I would have been more comfortable in a hospital setting with a vaginal breech birth, but we literally couldn't find somebody. We tried a few different providers and they all said no. (P4)

> I would have stayed with the hospital if they had competent providers trained to deliver breech vaginally. My personal belief is that the hospital should be the safest place to have a baby in case something went wrong. (P18)

> I have babies so fast. I would love to have a hospital birth … Then if something goes wrong, there's fantastic people who are knowledgeable that know how to help in that situation. I hate that I didn't have that. I hate it. I really do … I'm not going to make it … I'm going to have my baby in the car if we try to get me in a car … It was so fast. (P1)

Many participants were not enthusiastic about the idea of having a homebirth, but they preferred this option over what they viewed as an inevitable cesarean section in the hospital. Birth centers

were also viewed as a positive birth environment, but one that similarly would not permit planned vaginal breech birth. Many participants lamented the situation in which their ideal site of birth and ideal mode of birth were seemingly incompatible. However, there were a few participants who shared that their original preference was for homebirth, and that they had only planning a hospital birth due to financial limitations related to insurance coverage.

> Basically, I just wanted to do whatever I could to not have a C-section. (P16)

> I actually was not like, "I really want a home birth because I want to be at home." Actually, the idea of homebirth is pretty stressful for me. It's like, "God, it's going to be a mess! Everyone's going to be in my house!" I didn't really want to be at home, particularly. I wanted to be somewhere where I was taken care of. [But] I knew I wasn't going to be able to have the birth that I wanted in that setting. (P12)

> I didn't have a choice. There was nothing wrong with my body, and I did not want an unnecessary major surgery that would have been a great risk to my health. It is illegal for me to birth in a birth center, and I couldn't find a breech friendly provider/facility for an in-hospital birth. (P1)

> I feel like every woman deserves that: they deserve to be in the hospital if they want to be there, because if they feel that a hospital can help them or keep them safe from anything bad happening during labor or after labor, then they should be there. But, they also should be able to have a great birth … which sounds so contradictory. (P17)

> I always knew I wanted a birth out of the hospital, but it was the price of covering a midwife because in [my state], the insurance I had doesn't cover a homebirth at all, so that wasn't an option for me. But, my partner was pushing us to still try to have the homebirth with a midwife. What we did, he said, "We're going to figure out how to pay for it." We met with one and I was seeing her, and I'm also seeing the OBGYN to offset the cost of the labs because my insurance would cover it. (P8)

Access to care. Although many participants were offered an external cephalic version (n=19, 76%), none were offered care for planned vaginal breech birth in a hospital setting by their original prenatal care provider, and few (n=4, 16.7%) were offered referral to another care provider for vaginal breech birth. When such a referral was offered, it often did not turn out to be a valid option, as the referral was not able or willing to offer care for vaginal breech birth. Participants often went to great lengths to try to access care for vaginal breech birth in a hospital setting. Multiple participants went to extreme measures to find a breech birth provider at all, including paying large sums of money (as much as $11,000), traveling far distances, and even relocating temporarily to another state. Given the difficulty of finding a provider for planned vaginal breech birth, about half of participants (n=13, 52%) considered having an unassisted birth at home.

> My midwife actually said, "You are the perfect candidate for a breech vaginal delivery because you've had three vaginal deliveries before" … So, she did give me two other

> doctors names that she thought might be open to the possibility of taking me and letting me have a breech delivery at a hospital, but the one never returned any calls and the other one said I was too late in my pregnancy that he wasn't willing to take me on at such a late stage. (P21)
>
> I called every hospital in a 150-mile radius, begging for someone – anyone – to help me deliver my baby naturally. (P18)
>
> I had to drive, in labor, three hours to get to her, but honestly, people come from all over the country to birth with her, to avoid cesarean. (P10)
>
> I felt like, if no one was going to help me, I may very well have to do it alone. (P11)

Ultimately, only one participant in this study (n=1, 4%) was able to access care for a planned vaginal breech birth in a hospital. The majority of participants (n=18, 72%) were eventually able to access to supportive care for a planned vaginal birth in a homebirth setting.

As discussed above, many participants felt that they were not given options and had been denied the opportunity to make an informed choice about their birth (n=16, 64%). Most (n=17, 68%) reported feeling threatened or coerced into having a cesarean. Several participants described the use of coercive "scare tactics" that upset them even in the retelling.

> They told me that if I show up in the hospital, "If you walk through these doors, you will be sectioned." (P10)
>
> It was to a point my old midwife was calling. I wasn't answering the phone. She was leaving me messages: "You are putting your baby at risk. You could kill your baby. Your baby might die because of what you're doing and (*sobbing*) [to interviewer:] Sorry, (*wiping away tears*), I'm sorry. I didn't think I would get emotional about this. (P21)

Participants also described how a lack of available options and information meant they were unable to exercise autonomy.

> I knew that [homebirth] was illegal, and I couldn't go to a hospital because I knew there was a really good chance of me having a C-section. I didn't feel like I had a choice … I had a choice between a major surgery or homebirth. I guess that was my choice, but it didn't really feel like that gave me much of a choice. (P1)

Although not assessed on the survey, many participants shared in qualitative interviews that following their decision to pursue vaginal breech birth, they were dismissed from their prenatal care providers' practices and told they could not return for care.

> They literally sent me a certified letter stating they were dropping me from practice … I didn't get my records or anything. (P09)

As a result, several participants shared that they were unable access care for themselves and their newborns in the postpartum period including treatment of breast infections, prescriptions for lactation equipment (i.e., electric breastpump), newborn male circumcision, and routine pediatric care (i.e., refusal to accept their child into a pediatric primary care practice). Thus, participants

experienced not just an inability to access desired care for pregnancy and birth, but also barriers to accessing general medical and pediatric care for themselves and their children moving forward.

4.3.3 Aim 3: Describe the relationship between decisional autonomy and decisional satisfaction

Participant scores on validated instruments assessing autonomy in decision-making and decisional satisfaction are presented in Table 4-9. Most participants reported having low or very low autonomy in decision-making (n=20, 80%) and high decisional satisfaction (median 29, IQR 24-30), with 44% (n=11) of participants reporting the highest possible SWD score (30). As hypothesized, this study found an inverse relationship between autonomy in decision-making and decisional satisfaction to leave the hospital system and plan for a home breech birth, although this correlation did not reach statistical significance (r_s=-.21, p=.32). It is important to note potential concerns about the validity of these measures of assessing the intended outcome in this population, which are discussed in Section 5.1.4.

Table 4-9 Scores on Measures of Autonomy in Decision-Making and Decisional Satisfaction

Criteria	n (%)	Range	Median (IQR)
Mother's Autonomy in Decision-Making (MADM)		7-42	14 (7-21.5)
Very low autonomy	13 (52)		
Low autonomy	7 (28)		
Moderate autonomy	0 (0)		
High autonomy	5 (20)		
Satisfaction with Decision (SWD)		16-30	29 (24-30)

4.4 Member-checking and expert review

The researcher reengaged participants through a process of member-checking to strengthen trustworthiness and credibility of qualitative study findings. Participants were provided with a brief video explaining the researchers' synthesis and interpretation including core themes and the graphic illustration of the experience of decision-making (Appendix E). Responding participants (n=9/23, 39.1%) relayed support for the research findings and consistency with their perception of important aspects of the experience of decision-making for home breech birth. As a final effort to strengthen the plausibility of recommendations, an expert review was completed with an expert home breech birth provider (Dr. Stuart Fischbein), whose feedback was incorporated into the recommendations outlined in Section 5.4.

5 Discussion

5.1 Meaning of results in relation to hypotheses or aims

5.1.1 Describe characteristics of the study sample

The study sample (N=25) was sufficient to achieve diversity in both participant demographics and health outcomes with saturation of qualitative findings.[142-144] The number of participants is within the range or greater than sample sizes in related studies using a similar qualitative methodology (N=7–28).[30,58,126,135,137,138,185-190] Characteristics of the study sample were comparable to those of a national, general US homebirth sample (in which homebirth was planned or unknown if intended) based on CDC data from 2016-2019 (see Section 4.1). There were statistically significant differences in age, level of education, and type of insurance (as presented in Table 4-4). The study sample also had higher rates of breech birth (92% v. 0.7%) and individuals seeking VBAC (24.0 v. 4.1, p=.042).

There are several likely explanations for differences between these samples. First, the small sample size of this study precluded inclusion of a fully representative sample. Second, the convenience sampling approach used in this study may have created a sampling bias that reflects characteristics of those who opted to participate rather than the larger target population. Third, the lack of granularity regarding intended site of birth in the CDC data (leading to the inclusion of potentially unintended home births) may have contributed to differences between these two samples. Finally, it is plausible that these demographic differences reflect variations of individuals who opt for home breech birth specifically (rather than cephalic home birth), as breech presentation was a requirement for study inclusion but was a rare phenomenon in the CDC data. The higher rates of rates of breech birth and individuals seeking VBAC are directly related to this inclusion criteria and are supported by qualitative findings that many participants were seeking homebirth specifically to avoid a repeat cesarean for breech presentation.

It is also worth noting that this comparison demonstrated significant differences in type of intrapartum care provider, in that more study participants received care from a physician than those in the CDC dataset (36% vs. 1.1%, p=.002). This difference is not surprising given the limited access to experienced breech providers and differences in provider scope of practice and regulatory restrictions for attending breech births. In addition, recruitment for this study was bolstered by a homebirth obstetrician sharing study materials with former patients, several of whom enrolled in the study.

Although the CDC WONDER dataset does not delineate between different types of midwifery care providers, the Midwives Alliance of North America (MANA) Stats 2.0 dataset does provide this information. This dataset includes 16,924 individuals with a known planned homebirth under midwifery care from 2004 to 2009. It does not include persons receiving care from a physician, nor did it allow for selection of multiple care provider types. The distribution of care by type of midwifery providers in this study was similar to that within the MANA dataset, in which certified professional midwives (CPMs) provided the majority of intrapartum care (73%), followed by certified nurse-midwives (CNMs) (12.5%), licensed or direct-entry midwives (6.9%), and other/unknown midwives (0.2%).[191,192]

5.1.2 Aim 1: Explore the experience of decision-making

The qualitative findings in this study provide important insights into the experience of decision-making for home breech birth and identify key areas for potential improvement to perinatal care (presented in Section 5.3). The findings indicate that approaches to decision-making for breech birth in the hospital system failed to meet participants' expectations for respectful and safe care. Participants felt that their hospital-based care providers presented cesarean as the only option for mode of breech birth. Individuals who declined planned cesarean for breech presentation experienced a loss of autonomy, disempowerment, and coercion and/or withdrawal of care.

The American College of Obstetricians and Gynecologists (ACOG) advocates for inclusion of patient preferences into decision-making for breech birth, supports planned vaginal breech birth as a potentially "reasonable" option with appropriate screening and management guidelines, and reinforces that providers should respect pregnant persons' refusal of surgical interventions, never resorting to coercive counseling.[19,193] However, this study's findings indicate that approaches to decision-making for breech birth experienced by participants are not aligned with these professional recommendations or best available evidence about mode of breech birth.[2,17,194-198]

The study findings raise concerns about the lack of safe, respectful, and ethical care for breech birth decision-making and potential negative effects on both short- and long-term health outcomes and future involvement in the health care system. For example, many individuals in this study repeatedly stated that they felt "backed into a corner," "pushed out" of the hospital system, and "forced into homebirth" by providers and institutions that denied them the opportunity to make an informed choice and decline surgery. Additionally, for some participants,

the decision to leave the hospital system and pursue home breech birth resulted in a withdrawal of care from their original providers and created mistrust of the medical system, leading to potentially long-lasting negative effects on future health care encounters.

Evidence supports that hospital settings are associated with improved health outcomes compared to home breech birth,[73,83,199] but care for planned vaginal breech birth in a hospital setting is extremely difficult to find.[5,24,26-28] Many participants shared that if they had been able to access desired care within the hospital system, they would have not pursued homebirth. This research reinforces existing literature that homebirth in the presence of "contraindicated" or "high-risk" conditions (such as breech presentation) is a sign of failure of the perinatal care system to meet patients' needs.[200-202] This study provides important evidence that increased access to vaginal breech birth in hospital settings would reduce the number of individuals opting for planned home breech birth and that current practices for breech birth decision-making birth are likely placing some birthing people and their infants at increased risk.[29,83,203]

Qualitative study findings also highlight a broader understanding of what matters to pregnant and birthing persons and how these factors are prioritized in birth-related decision-making. Consistent with previous literature, the individuals in this study viewed birth as a significant life event and rite of passage into motherhood with deep impact on the physical, psychological, emotional, and spiritual wellbeing of the mother, baby, and family.[115] Data from this study support existing research that for many childbearing persons, psychological and emotional health and values such as dignity, autonomy, and bodily integrity are major contributing factors to care decisions and are considered essential aspects of overall wellbeing and safety.[95,204] Having a 'healthy baby, healthy mommy' is an oft cited goal of perinatal care providers, but this dictum appears to underrepresent the fullness of what matters to individuals in birth decision-making.[64]

This study reinforces that "having a healthy baby" in the end does not negate the experience of care. It also highlights ways in which trauma around pregnancy- or birth-related decision-making and care can have a lasting effect on maternal wellbeing and future care decisions.[6,205] Findings from this study reinforce existing research that experiencing a lack of control, agency, dignity, privacy, or respect are major contributors to the perception of traumatic care experiences.[101,171,206,207] As such, the birth experience had the potential to be deeply traumatic and disempowering or extremely healing and strengthening, with wide-reaching and

long-lasting effects, as supported by national and international calls for reform towards respectful, person-centered perinatal care.[64,65,107,171,208]

Results of this study are consistent with many findings in existing homebirth literature. For example, reasons for pursuing breech homebirth identified in this study are similar to those reported for selecting a homebirth without breech presentation, such as trust in the birth process, respect for embodied knowledge, and the desire to avoid interventions, loss of agency, or retraumatization.[170,209-213] Additionally, study findings reinforce a relational definition of autonomy in decision-making that includes access to information, agency, and feelings of personal security and reflects socially embeddedness in relationships with partners, family, society, and health care providers and institutions.[103,108,110,214-216] Our results also confirm existing research on the importance of personal agency in birth decision-making, specifically its effect on satisfaction, emotional wellbeing, parenting, and self-perception.[217,218]

As the first known study into breech birth decision-making in the US, this study adds to findings from international research that pregnant persons experience processing and coping with a diagnosis of breech presentation that includes shock, fear, stress, mourning the loss of the ideal birth, and being hopeful that the fetus will turn.[137,219] This study also reinforces existing literature regarding the important sociocultural influence of media and online discourse and media on the perception of safety and preference for mode of breech birth.[220-222] Finally, our research supports broader findings in recent perinatal research that pregnant persons who decline provider recommendations may experience pressure, coercion, and withdrawal of care and that such actions are associated with feelings of disempowerment and a loss of trust in healthcare providers.[38,136,223]

5.1.3 Aim 2: Assess preferences for mode and site of birth and access to care

In this study, all participants preferred vaginal birth over cesarean for mode of breech birth, and none were offered care for planned vaginal birth in the hospital by their primary prenatal care providers. With some notable exceptions, the majority of participants (n=12/17, 70.6%) stated that they would have preferred to give birth in a hospital setting if supportive care for vaginal birth had been available. Due to a flaw in survey wording and branching logic, there were diminished responses for quantitative data on this aim. However, it was clear from mixed methods analysis that the general perception among study participants was that the hospital was the safest place to give birth "just in case" something went wrong, a concept which is supported

by other homebirth decision-making literature.[138,212] Notably, the result for this aim was less than the original hypothesized 90%, due to new insights discovered in this study regarding intertwined care pathways and complexities of care which lead some individuals who preferred homebirth to receive prenatal care from hospital-based care providers (discussed in Section 4.3.2).

5.1.4 Aim 3: Describe the relationship between autonomy and decisional satisfaction

This study found an inverse correlation between autonomy in decision-making and decisional satisfaction to leave the hospital system to pursue home breech birth, although this result did not reach statistical significance. The lack of statistical significance was in large part due to the lack of variability in decisional satisfaction scores among study participants, with 11 participants (44%) scoring at maximal satisfaction (30) and 18 (72%) scoring a 25 or higher. These high rates of satisfaction are consistent with general literature on satisfaction in perinatal care, where dissatisfaction is generally low.[224] Rates of satisfaction in this study may be affected by selection bias, as individuals who felt negatively about their experience may have been disinclined to participant or unreachable through study recruitment strategies.

There is a possibility that the instruments used in this study, although well tested to study perinatal care (as described in Section 3.3.2), were not optimal for assessing the intended outcomes in this population. Several of the items assessed were shown to be confusing or not applicable to some participants in qualitative interviews. For example, 2 statements in the Satisfaction with Decision [SWD] scale ("I am satisfied that I am adequately informed about the issues important to my decision" and "I am satisfied that this was my decision to make") scored much lower than the other items in this instrument. These 2 items had item-to-total correlations of .48 and .32 respectively, compared to item-to-total correlations ranging from .71 to .87 for all other items. This result is not surprising given findings from this study about the relational ecology of breech birth decision-making.

There were several aspects of the Mother's Autonomy in Decision Making (MADM) scale that were not well aligned to assess autonomy in breech birth decision-making. For example, this instrument asks a series of questions that seem to suggest that decision-making occurs between a patient and a single care provider (i.e., "My midwife/doctor asked me how involved in decision-making I wanted to be"). This assumption is problematic for several reasons. First, many participants were simultaneously receiving care from several different care

providers and expressed confusion about the selection of a single provider to respond to these questions. Similarly, participants who had multiple breech pregnancies expressed difficulty in separating memories of their experiences:

> It was very hard because I felt differently with each of my births about things. It's hard to answer the survey. I was trying really hard, and it was like, "Wait a minute. Am I thinking about this one or this one?" I was all over the place. I'm sorry … When you done it four times, it's hard to figure out which one is what. (P1)

A second possible shortcoming of this instrument is that it may be perceived to be asking about a single point in time in which decision-making occurred, specifically a single patient-provider health care encounter. Participants in this study acknowledged difficulty in pinpointing a specific care encounter to guide their responses, as decision-making for breech birth was a dynamic, multi-phase process around a constantly evolving situation and often occurred over multiple encounters or, more commonly, outside of the context of a health care encounter.[225] Even when a decision was perceived as final, changing circumstances may have shifted the decision or even removed the individual's opportunity to execute on their desired decision. As such, participants experienced multiple distinct decision points and sometimes opted not to decide and just let the situation unfold. These decisional situations were difficult to assess using the MADM scale.

Third, this instrument appears to be most appropriate for situations in which patients or providers have identified a specific care point in which a decision needed to be made and engaged in a bidirectional process of decision-making. However, as this study shows, the perception of participants was that many providers did not see any option other than cesarean for breech birth and so did not engage in any decision-making conversation around mode of birth. Finally, several participants stated they were unsure how to rate the item "My midwife/doctor respected that choice," because they had not felt comfortable sharing their decision to have a homebirth with their hospital-based care provider. This is evidenced in the following exchange between the participant and interviewer who was assisting with survey completion:

> *Interviewer*: The last one is: My doctor respected that choice.
>
> *Participant*: I don't know if I can really answer that, because I didn't discuss it with him. (P22)

5.2 Limitations

This is the first study to explore the experience of decision-making for breech birth in the US and offers valuable insights into understanding this experience and recommendations to

improve perinatal care for breech pregnancy and birth. Strengths of this study include the diversity of participant demographics, including geographic location, and birth outcomes and richness of the qualitative data. Multiple modes of participant recruitment and the mixed methods design allowing for data triangulation enhanced the trustworthiness of study findings. However, there were several important limitations to study, including the potential for sampling bias, retrospective cross-sectional study design, reliance on self-administered questionnaires, and initial lack of appreciation for the complexities of care around home breech birth decision-making. Each of these are discussed in detail below.

First, the study sample does not fully represent the diversity of individuals who left the hospital system to pursue a home breech birth. Recruitment and sampling methods have the potential to create a biased sample, since individuals who felt more positively or strongly about their experience may have been more likely to remain connected to their care providers or be active in targeted social media groups. Individuals who did not achieve a successful home breech birth or experienced serious complications may have opted not to participate to avoid negative emotions. In addition, those individuals who encountered greater struggles with decision-making may have felt more compelled to contribute to this research. Finally, the use of internet-based surveys may have contributed to sampling bias, favoring participation by those with internet access and higher educational attainment. The goal of this study was not to achieve representative sampling in order to generalize the study findings to the entire population of interest, but rather to provide insight into this experience as a foundation for future research with more robust designs and study samples.

Second, the retrospective, cross-sectional design of this study limits the results to a single point in time, and it is possible that participants' recollections of events, perceptions of autonomy in decision-making, or feelings of satisfaction change over time. The study design also relied on self-administered questionnaires, which proved to be a suboptimal method of data collection for the population of interest based on frequent errors and omissions, as discovered through data triangulation. For example, participants put their baby's date of birth instead of their own, selected the wrong state to identify their location, omitted risk factors (such as a prior uterine incision), and were unsure of providers' credentials. Participants also misinterpreted questions asking about the number of times they had been pregnant or given birth and conflated

experiences of multiple pregnancies/births. Longitudinal study designs, use of pilot testing, and researcher-assisted survey completion may help to mitigate these concerns in future studies.

Third, as a pioneering, exploratory study into a rare outcome, there was insufficient information at the outset of the study to fully appreciate the complexities of care, which created limitations in quantitative data collection. The mixed methods approach used in this study and inclusion of member-checking and expert review served to strengthen the research findings through triangulation of data. However, researcher preconceptions of linear and distinct care pathways failed to account for the complexity surrounding home breech birth in survey design. For example, participants were asked to respond to questions about the provider "primarily responsible" for their care at a specific point in time, but, as discussed in Section 5.1.4, some participants who were receiving care in group practices or from multiple, separate providers. Similarly, questions asking patients to evaluate a decision point failed to account for the evolving nature of this decision, raising questions about the validity of singular, fixed measures such as the MADM and SWD instruments. When potential confusion or misinformation was identified, data were clarified and corrected through qualitative interviews to strengthen the validity of study findings. However, these errors happened with a degree of frequency sufficient to raise concerns about the utility of self-administered survey data collection in this population.

Finally, it is worth nothing that recruitment and data collection for this study took place during the COVID-19 pandemic. It is possible that the circumstances of the pandemic affected study participation and reliability of study findings. For example, COVID-related stress or shifting perspectives on the safety of the hospital or trust in health care providers may have affected participants' responses.

5.3 Recommendations for practice

Due to the retrospective, qualitative design of this study, it is not possible to draw strong conclusions regarding clinical practice recommendations. This exploratory research should be used to guide future research into practice recommendations based on the identified shortcomings of the current system of perinatal care delivery in meeting participants' expectations for respectful and safe care for breech pregnancy and birth. This section presents recommendations worthy of consideration for clinical practice and health system reform to improve the quality of perinatal care, as described in detail below and outlined in Table 5-1.

These recommendations are centered on two domains: (1) provider recommendations aimed at the provision of patient-centered care that facilitates informed choice and (2) health systems recommendations focused on increasing access to skilled breech birth providers, especially in hospital settings.

Table 5-1 Recommendations to Improve Perinatal Care

Provider Recommendations
Patient-centered, trauma-informed care
Shared decision-making with respect for patient autonomy
Evidence-based information about the full spectrum of care options
Flexibility to accommodate individual patient preferences
Referrals, when appropriate
Health Systems Recommendations
Interprofessional provider education and training
Institutional support for planned vaginal breech birth
Development of evidence-based guidelines and decision tools
Integrated care system, ideally including specialized breech teams or centers
Medicolegal reform to health insurance and professional liability

5.3.1 Provider recommendations

The study findings suggest that decision-making for breech birth appears to be an area where individuals may experience paternalistic decision-making, loss of agency, coercive counseling techniques, and biased/incomplete information. Therefore, a major recommendation based on the study findings is the need for revision to current patient-provider interactions around decision-making for breech birth to provide individualized, patient-centered care that respects patient autonomy and facilitates informed choice. This recommendation is aligned with national and international calls recognizing patient-centered care and informed choice are core markers of quality health and perinatal care.[60,65,93,96] It is also important to approach decision-making from a perspective of trauma-informed care, especially for individuals with a prior cesarean.[226]

It is well established that shared decision-making best supports patient-centered care.[227] Shared decision-making for breech birth begins with identification of term breech presentation as a clinical scenario in which a decision, or a series of decisions, needs to be made and the patient's participation is sought.[57,228] Not all patients will want the level of ownership over decision-making or degree of information desired by participants in this study, and individuals from differing social, educational, or cultural positions may need customized approaches to exercise autonomy in decision-making.[229] Providers should assess patients' desired role and level

of involvement in decision-making to guide their approach to counseling and decision-making. They should also recognize that term breech diagnosis may come as a shock to some patients, who may need to time to process the situation before they are able to engage in information gathering and decision-making. A scheduled follow-up visit after term breech diagnosis may be helpful to allow time for consideration, processing, information gathering, and discussion with partners and family members, when desired. Mode of birth decision-making discussions may require more time than is allotted in a standard prenatal care visit or require multiple encounters to ensure that patients do not feel pressured.

After identifying term breech diagnosis as a decision point, providers should recognize that there are multiple reasonable options and discuss these options with the patient. These options include planned cesarean (scheduled or unscheduled), planned vaginal breech birth (induced or spontaneous), deferring the decision, and/or interventions to reposition the fetus. These interventions may include patient-initiated efforts such as maternal positioning, provider-initiated efforts such as external cephalic version, and/or the use of complementary and alternative therapies such as acupuncture or chiropractic care. Study findings indicate that current provider counseling approaches are biased towards cesarean for mode of term breech birth. However, perinatal care providers have a professional and ethical obligation to provide unbiased information about options for care including risks, benefits, and alternatives of all available options and the strength and limitations of this evidence. Informed choice would be enhanced by approaching counseling with an understanding that each option has risks and benefits and that the clinician's role is to provide decisional support to help patients identify which option is best for them.[57] The study findings suggest that when information about care options does not come directly from health care providers, it may lead to a loss of trust and information-seeking from potentially unreliable outlets.

Following discussion of available options, providers should assess and incorporate patients' unique circumstances, values, needs, and preferences into determination of the optimal plan of care.[228] In this study, positively viewed decision-making encounters were those in which health care providers presented term breech diagnosis as a decisional opportunity, took time to listen to patients' concerns, and engaged in bidirectional exchange of information and discussion showing care, concern, compassion, and respect for patients' embodied knowledge. Additionally, participants specifically sought care providers who prioritized respect for patients' autonomy

over adherence to institutional policies or fear of liability, in essence, putting "people before protocols." Study findings suggest that providers who are willing to "give a little" by modifying their recommendations or standard care to accommodate patient's requests may "gain a lot" in the way of patient trust and building a relationship on mutual respect. A flexible approach to recommendations may also serve to individualize care to reduce the overuse of interventions leading to complications by doing "too much, too soon," while still sustaining patient concordance with provider recommendations to avoid doing "too little, too late."[204]

A prime example of this flexible approach in breech birth decision-making is the possibility of a planned, unscheduled cesarean. The option of a planned cesarean at the onset of labor may be an acceptable option for patients who feel strongly about the timing of their birth, want to allow time for fetus to turn, or view "not scheduling" as a way to exert some control. Supporting patient choice for unscheduled cesarean may create an opportunity for patients to exercise agency, feel respected and heard, have open and honest communication with their care providers, and maintain continuity of care, all of which were essential aspects of quality care to participants in this study. This option would also accommodate flexibility of patients' planned mode of birth, should they later elect to schedule a cesarean. As with all plans of care, this decision should be revisited through ongoing reassessment in follow-up care encounters.

Finally, when the result of shared-decision making is discordance between provider recommendation and patient preference, a patient's informed choice should be respected.[193] Providers should never resort to coercive counseling and instead should respect patient autonomy, providing informational resources and respectful referral to a provider who may be better positioned to provide desired care.[230] When patients decide to pursue planned vaginal breech birth, they should be encouraged to seek care from a skilled breech birth provider.[35,231] It may be useful to create and maintain a database of experienced breech birth providers to guide referrals as well as publicize potential opportunities for provider training.

5.3.2 Health systems recommendations

On a health systems level, there are several important changes that would increase opportunities for safe and respectful perinatal care for vaginal breech birth. To start, individuals cannot receive quality care without increasing access to skilled breech birth providers. There are several possible avenues toward achieving this goal. First, enhanced opportunities for provider training are necessary to develop these skills in clinicians. Ideally, this would involve interprofessional

education that incorporates birth providers who have expertise in physiologic breech birth.[50,150,232,233] There are several organizations devoted to breech education and training that provide both in-person and online workshops and resources such as Breech Without Borders and OptiBreech.[234,235] Training for vaginal breech birth should be mandatory in physician residency and midwifery educational programs, beyond the context of an obstetric emergency.[236] Continuing education, including videos and simulations, is also important in the development and maintenance of breech birth skills.[26] In addition to clinical breech birth skills, training should aim to enhance shared decision-making and the provision of evidence-based information about vaginal breech birth.

Second, revision to hospital policies and regulatory practice guidelines restricting scope of practice for skilled breech providers are necessary to reduce barriers for skilled clinicians willing to offer this care and provide opportunities for others to learn. Best available evidence suggests that the hospital setting is associated with improved health outcomes for breech birth, compared to community birth,[37] yet even experienced providers willing to offer planned hospital birth encounter institutional barriers that restrict them from doing so.[24,84,85] As one hospital-based breech provider wrote, "the few physicians who attend vaginal breech births often face great pressure from their hospital administrations to discontinue offering this service to women."[24, p.544] Changes to hospital policies and may be necessary to support breech birth providers in offering this service and supporting patients' rights to refuse surgery for breech presentation.

Third, professional organizations, researchers, and providers should refine evidence-based guidelines around screening and risk factors for vaginal breech birth. Several participants cited a lack of an individualized risk assessment based on evidence-based guidelines as a cause for distrust of the medical system and a motivation to seek care outside of it. The creation of evidence-based patient resources and decision tools for management of term breech presentation would be valuable to support patient informed choice.

Fourth, health care stakeholders should support integration of care across birth settings and provider types, based on overwhelming evidence supporting improved perinatal health outcomes in integrated care systems.[64,81-83,203] The NAS report specifically recommended the development of in-hospital units with integrated care teams to provide care and opportunity for training for "underutilized nonsurgical maternity care services that some women have difficulty obtaining, including… planned vaginal breech."[23, p.9] An integrated system should include team-

based, interdisciplinary care for breech pregnancy and birth that optimizes provider communication, collaboration, and continuity. Optimally, the development of specialized breech teams, clinics, or centers of excellence would further enhance care.[151] Such specialist groups have been shown to decrease rates of cesarean deliveries for breech-presenting fetuses without adversely affecting neonatal outcomes in the United States and abroad.[237,238] Breech specialist groups have the potential to increase patients' access to skilled providers and serve as centers of clinical training and research.

Finally, medicolegal reforms would be beneficial to reduce barriers to affording and providing care for vaginal breech birth.[239] Lack of health insurance coverage presents a major financial burden for pregnant persons and has the potential to be coercive factor in decision-making or insurmountable barrier to obtaining desired care, especially among those with lower socioeconomic status. To protect individuals' ability to decline surgery, health insurance should provide coverage for providers who are willing to attend a planned vaginal breech birth. Similarly, protections from institutional censure, liability, or withdrawal of malpractice coverage should be in place for providers and institutions who deviate from the current standard of care to honor individuals' right to informed refusal of cesarean and do not withdraw care, thereby inevitably providing care for a trial of labor for vaginal breech birth.

5.4 Implications for research

This study was the first to explore the experience of decision-making of leaving the hospital system to pursue home breech birth in the United States and provides a foundation for future research with more diverse study samples. To provide a broader understanding of decision-making for breech birth, future studies should consider the experience of decision-making from alternative perspectives, such as that of individuals who accessed hospital care for vaginal breech birth (without necessarily pursuing homebirth), those who opted for planned breech cesarean, as well as the experience of care providers in breech birth decision-making. It may also be worth exploring the role of partners/spouses, doulas, childbirth educators, and other related carers in decision-making, as many participants noted that information provided by these individuals influenced their decision-making.

This study demonstrated that decision-making does not occur necessarily as a punctuate decision[128] at a single or distinct point, but rather as a complex and constantly evolving

assessment, often across nonlinear and overlapping care pathways. As such, future studies should employ longitudinal study designs to observe differences in decision-making over time. It is also worth considering the utility of reporting breech birth outcomes based on a single intended site of birth or type of care provider and potentially expanding data collection to account for the possibility of multiple providers or uncertainty around intended site of birth.

In addition, since many individuals are now comfortable attending online video meetings, researchers should explore the quality of data collected by remote interviews in comparison to self-administered questionnaires, especially given the concerns about errors in data entry, misinterpretation of survey questions, and richness of interview data highlighted by this study. The value of existing measures of decisional autonomy and satisfaction in pregnancy- and birth-related decision-making should also be researched in larger and more robust studies given identified limitations of these measures in assessing these outcomes in this population. Future research may benefit from exploring adjustments to existing measures to account for complexities of care and decision-making as described in this study.

Given the shortcomings of the current perinatal care system to provide safe and respectful care for breech birth highlighted in this study, stakeholders should work together to identify existing barriers to care for vaginal breech birth in the United States and potential resolutions. More research is necessary to guide the development of evidence-based guidelines and decision tools for breech birth decision-making and risk assessment. Additional research into evidence-based guidelines and contraindications for external cephalic version (ECV) would also be beneficial based on findings from this study that patients were not offered ECV for a multitude of reasons not well supported by current evidence.[240] Concerns raised in this study about the effect of COVID-related restrictive hospital policies, specifically those on limiting the presence of a partner and doula, as a motivation for out-of-hospital birth should also be explored. Finally, prospective studies are needed to assess the efficacy of clinical practice and health systems recommendations made here on the quality of care for breech birth decision-making and associated health outcomes.

5.5 Conclusion

Individuals leave the hospital system to pursue a home breech birth due to a lack of opportunity for informed choice, supportive care for vaginal breech birth, or access to skilled breech

providers within the hospital setting. Barriers to care and current practices for breech birth decision-making may be placing birthing people and their infants at increased risk in both the short and long term. Health care providers and systems should increase the provision of person-centered care to facilitate informed choice and access to skilled breech birth providers. These recommendations have the potential to expand ethical, safe, and respectful perinatal care and reduce the number of individuals leaving hospital care to have home breech births. Prospective, longitudinal studies are needed to assess the efficacy of recommendations on the quality of care for breech birth decision-making and associated health outcomes.

Appendices

A Instruments

Mother's Autonomy in Decision Making (MADM)

1. My midwife/doctor asked me how involved in decision-making I wanted to be.
2. My midwife/doctor told me that there are different options for my maternity care.
3. My midwife/doctor explained the advantages and disadvantages of the maternity care options.
4. My midwife/doctor helped me understand all the information.
5. I was given enough time to thoroughly consider the different maternity care options.
6. I was able to choose what I considered to be the best care options.
7. My midwife/doctor respected that choice.

Rating: 1= Complete disagree; 2=Strongly disagree; 3=Somewhat disagree; 4=Somewhat agree; 5=Strongly agree; 6=Completely agree

Source: Vedam S, Stoll K, Martin K, et al. The Mother's Autonomy in Decision Making (MADM) scale: Patient-led development and psychometric testing of a new instrument to evaluate experience of maternity care. *PLoS One*. 2017;12(2):e0171804.

Permission: The MADM scale is free for use in academic settings. A User Agreement was submitted and the instrument was from Birth Place Lab (https://www.birthplacelab.org/tools/).

Satisfaction with Decision Scale

You transferred out of the hospital system to pursue a breech birth at home. Answer the following questions about your decision. Please indicate to what extent each statement is true for you at this time.

1. I am satisfied that I am adequately informed about the issues important to my decision.
2. The decision I made was the best decision possible for me personally.
3. I am satisfied that my decision was consistent with my personal values.
4. I expected to successfully carry out the decision I made.
5. I am satisfied that this was my decision to make.
6. I am satisfied with my decision.

Rating: 1=Strongly disagree; 2=Disagree; 3=Neither agree nor disagree; 4=Agree; 5=Strongly agree

Source: Holmes-Rovner M, Kroll J, Schmitt N, et al. Patient satisfaction with health care decisions: the satisfaction with decision scale. *Med Decis Making*. 1996;16(1):58-64.

Permission: Permission and instrument were obtained by email from the lead author.

B Survey

The survey used in data collection is provided as a separate .pdf file (Appendix B Survey.pdf), accessible at https://vanderbilt.box.com/s/l98b1hnkjv370r7lb76qt40tpv0qcg4j.

C Interview guide

Topic	Example Questions	Example Probes
General narrative	Tell me about your experience, what happened, what you were thinking, and how you made the decision that you did. In the survey, you said [*unclear/unique survey response*]. Can you help me understand that better?	What was that like for you? How did you feel? What were you thinking? What happened then?
Considerations	What was important to you in making this decision? How did you make this decision?	What does that mean to you; can you give me an example? What was important to you in selecting that provider?
Influential factors	What led you to this decision? What role, if any, did your personal or community beliefs play in your decision-making? How did your family, friends, or community, react to this decision?	What people or sources of information do you think influenced your decision?
Interactions with health care providers	Can you describe any interactions you had with your health care provider in making this decision? In an ideal world, what would that experience have looked like? Is there anything that could have happened in your discussions with your health care provider that would have led you make a different decision?	How did your provider respond? How did that interaction affect your decision? How did you feel about that interaction? How was that experience different from what you expected would happen? How was that interaction different than the one you had with your [other provider]?

Topic	Example Questions	Example Probes
Perception of risk and benefits	What did you see as the risks and benefits?	Why did/didn't you feel that home/hospital/cesarean/unassisted birth was best for you? What do you think you were prioritizing at that time?
Reflections	Looking back, how do you feel about your decision? What advice would you give to someone else in that situation? Do you think this experience of decision-making affected you in other aspects of your life? If so, how?	If you had gone through this experience knowing what you know now, would it have been different? If so, how?
Conclusion	Recognizing that the goal of this research is to better understand the experience of decision-making, what do you think is the most important thing for us to understand? Is there anything else you'd like to share?	Why did you decide to participate in this study? If there was one main take-away message you wanted to make sure I heard from your story, what would it be? What do you think researchers and clinicians need to know about this experience?

D Codebook

Code	Sub-Code(s)	Explanation
! To Discuss		Flags this content for discussion with committee
! Quote (save this quote)		Quoteworthy selections
Defining risks	Fearing/experiencing (F/E) a loss of autonomy	Statements about not wanting to have to fight to get one's way, have one's wishes respected, not have interventions; being forced to stay in the hospital; non-consensual actions; not having one's wishes honored; restriction on food/mobility/positioning
	F/E loss of bodily integrity	Statements about perceived threats to bodily integrity influencing DM
	F/E loss of dignity	Statements about perceived loss of dignity as a threat influencing DM
	F/E loss of privacy	Statements about having privacy or people present in the room as contributing factors to risk/safety
	Being in a vulnerable population	Statements about how being in a vulnerable population affected the DM
	F/E threats to future reproductive capacity	Concerns about future pregnancies as reason influencing mode/site of birth DM

	F/E threats to psychological wellbeing	Statements about risks to psychological wellbeing including transferring in labor/birth, bonding with baby, mental health/depression, separation from baby or FOB, being in an uncomfortable/non-preferred environment
	F/E physical risks	Statements about risks to physical wellbeing including unnecessary interventions, induction, biomedical/surgical outcomes (e.g., infection, trauma, pain), breastfeeding and milk production, having medical risk factors, neonatal microbiome, neonatal health outcomes, postpartum recovery
	Fearing general or vague risks to wellbeing	General or vague concerns about risks/safety of C/S, undefined long-term sequalae
Defining safety	Access to care	Statements about factors that contributed to safety based on access to care, such as distance to care time), resources, staff, emergency care, medication, technology
	Trusting or wanting evidence/research	Statements about using scientific/medical research to justify DM and feel safe (evidence-based DM); also reviewing the research, being well versed on the evidence/research, statistics; becoming "educated"
	Having autonomy or control	Statements about autonomy, choice, or control contributing to feelings of safety
	"It's safe because it's natural"	Statements about viewing "nature" (natural way, Mother Nature, no interventions) as a safety factor affecting DM
	Provider safety	Statements about feeling safe due to provider factors such as: • health care provider recommendation or being deemed a "good candidate" • having someone (anyone) there (not being alone), known provider(s) • provider experience • licensure/certification • relationship, trust, and communication
	Having a plan or rules	Statements about having a clearly laid out plan (e.g., when to transfer, what would happen if…) leading to feeling safe
Feeling emotions	Feeling positive emotions	Positive statements about emotional responses to the experience/care (e.g., + empowered/strong, lucky, at peace)
	Feeling mixed emotions	Mixed statements about emotional responses to the experience/care (e.g., heard, trusted, respected, validated, prepared, supported
	Feeling negative emotions	Positive statements about emotional responses to the experience/care (e.g., abandoned, alone, angry/frustrated, betrayed, sad/defeated/hopeless, scared/panic/fear, shocked, stressed/overwhelmed, threatened/vulnerable, trapped/cornered/stuck,

		traumatized/PTSD, wary (expecting negative judgement)
Valuing normal birth	Describing underlying beliefs and values contributing to decision-making	Beliefs and values underlying an appreciation of normal birth; merged preliminary codes: • Embracing pain as productive • Viewing hospital care as a hindrance to normal birth • Being healthy/low risk • Being normal (breech as a variant) • Having confidence in the ability to birth • Having strong birth preferences • Loving "all things birth" • Trusting intuition (embodied knowledge) • Viewing birth as NOT a medical event • Wanting natural birth • Wanting to avoid cesarean
Being backed into a corner	Experiencing barriers to agency	Statements about specific factors that restrained choice; merged preliminary codes: • Being a "compliant patient" (conform to social norms) • Financial and insurance coverage ($) • Health disparities • Lack of access to skilled & willing breech HCP • Lack of information or awareness of options • Legal and licensure • Liability • Losing the opportunity to decide • Paternalism • Physical (pain/strength) • Provider reluctance or limitations • Restrictive hospital policies • Time (limited)
	Having NO choice	Statements about not having the opportunity to exercise decision-making (or no opportunity for informed choice b/c there was no choice to be made)
	Negotiating or fighting for desired plan/care	Statements about negotiating with health care providers (e.g., “Just let me go into labor"), fighting for desired birth, trying to convince health care providers, “just wanting a chance to try,” or “not scheduling” (wait and see approach)
	Experiencing negative aspects of counseling	Statements about specific factors that restrained choice; merged preliminary codes: Being pressured by HCP Being shortchanged (not fully assessed) Being told "you can't" (aren't capable) Use of scare tactics

	Doing "everything possible"	Statements about considerable effort/time to achieve one's goals
	Trying to turn baby (ECV/other)	References to attempts to turn the baby into cephalic presentation, including ECV and patient-initiated
	Being pushed out of the system	Statements about the impetus leading to leaving the hospital system, or being removed from the system
Asserting agency		Examples or statements about the desire to exercise agency or autonomy (bodily or decisional); merged preliminary codes: • Canceling scheduled appts or c/s • Controlling the things I can • Doing it "my way" • Having a choice • Having control ("letting you take the reins") • Owning the outcomes (accepting "there are always risks" and taking personal responsibility) • Refusing interventions • Seeking a HCP who will meet your needs • Trusting intuition • Understanding there are options • Valuing informed consent
Phases of decision-making (internal)	Processing the situation	Statements about mental effort or coping/processing the situation; merged preliminary codes: • Being in denial • Closing off from others (keeping quiet) • Deferring • Disconnecting • Grieving the loss of a dream • Holding out hope ("Maybe the baby will turn") • Trying to justify/explain breech presentation • Refusing to accept
	Thinking about decision-making	Statements about reflecting on decision-making, such as checking in on my thinking; finding strength/peace in spiritual realm (i.e., prayer, faith, contemplation, ancestral ties, mindfulness); reconsidering the decision; staying open; accepting the decision
	Weighing pros/cons	Statements about considering a balance of risks/benefits of various options
	Considering different models of care	Reflections on different care models, merged preliminary codes: • Considering/valuing birth center • Considering/valuing homebirth • Considering/valuing hospital birth • Valuing medical or midwifery care

		• Thinking about showing up pushing or going unassisted
	Balancing priorities or identities	Examples where birth preferences/planning or personal needs/desires were balanced against other considerations, priorities, or intersectionalities — includes considerations of FOB, being a mother to existing children, conforming to family/social expectations
	Gathering information from internal sources (oneself)	Statements about gathering information from oneself, including experiences of trauma, learning from previous births/experiences, role of one's background or culture
Phases of decision-making (external)	Gathering information from external sources	Statements about gathering information from external sources such as other countries, family/community, hearing "horror stories", impact of social media groups, learning from others, advice of doulas/chiropractors or other carers
	Discussing options with HCP	Sections of the narrative recalling HCP encounters where they discussed options for birth
	Being referred to another HCP	Being referred to another care provider for breech management
	Navigating care pathways	References to changes in care pathways such as "pivotal moments" leading to changes in providers, pursuing multiple care pathways at once, searching for a new provider
	Being offered ECV	References to HCP offering external cephalic version
	Making and accepting a decision	Statements about making a final decision about the site/mode of birth and accepting this decision
	Withholding information or truth	Statements about not openly disclosing the truth or information with HCP
Reflecting on the experience	Reflecting on the experience (positively)	Statements about feeling positively in reflecting on the experience; merged preliminary codes: • Being transformed—lasting effects • Gaining faith/trust in oneself • Healing from trauma
	Reflecting on the experience (neutral or negative)	Statements about feeling positively in reflecting on the experience; merged preliminary codes: • Losing or gaining faith in the medical system • Passing judgement on others • Seeing the good (being fine, idealizing the birth, minimizing complications) • Regretting decisions, thoughts, or actions • Wanting to create change
Making recommendations	Decision-making encounter recommendations	Statements to support a clinical practice recommendation, such as: • Allow unscheduled C/S • Information

	• Individualized risk assessment • Answering all questions • Listen to women • Respect patient autonomy • Shared decision-making • Flexible boundaries • Inclusion of FOB/family • Offer support NORMAL labor and birth • Refer to breech specialist • Showing care, concern, compassion, respect • Timing the discussion
Institutional recommendations	Statements to support an institutional recommendation, such as: • Home-like less medical environment • Remove restrictions for skilled providers • Create EB sources of information • Increase access to hospital VBB • Integrated care • Provider education and training • Revisions to insurance coverage

E Member checking video

The informational video provided to participants for member checking can be viewed here:

https://vanderbilt.box.com/s/f31862x0kq8urhz85svkkddl607n86g4

F Exemplars

Field note

FIELD NOTE 9
Interview Data
Date: 3/16/21
Time: 3p
Context: season/pandemic status/etc. n/a
Significance of this datetime, if any: n/a
Method: (Zoom/telephone/other) Zoom, video on
Recording: confirmed
Participant Data
ID: P15
Participant demographic data: white, AMA, rural location
Reflections on communication/interactions prior to interview: n/a
Relationship to timing of birth/DM in relationship to pandemic/current events: n/a
Initial and overall impressions
General observations: seemed very easygoing

Participant's physical environment: bedroom or family room; caring for kids during interview
Comments on participant's expression/communication style: even, articulate, calm and thoughtful; long pauses when asked questions
Comments on any changes in communication over the course of the interview:
Comments on non-verbal communication: added to transcript
Interruptions/distractions/actions/people in participant environment: lots of interruptions; older kid present and chiming in with information, younger kid on lap/pulling at her for much of the interview
Visible/audible reactions/emotions: added to transcript

Conclusion of interview

Focus at interview conclusion: she needed to go take care of her kids
Reactions to interview ending: gratitude at being given the opportunity to share
OK for f/u: Yes

Length of interview: 2 hours

Researcher reflection memo

Summary of her story (in my own words):

She had a previously negative birth experience (not traumatic, just negative) involving AROM without consent ("accidentally" during outpatient VE) leading to induction, epidural, Pitocin, etc. She associated two negative health outcomes with the medical interventions: severe allergies in her child and long-term numbness from the epidural. At the onset of the pregnancy, she considered homebirth but wasn't in an area with access to homebirth care and was discouraged from exploring this option by her OB (interesting, the OB had 2 prior homebirths). She had strong confidence in her body/ability and desire for natural childbirth in the absence of medical interventions and wanted to avoid these negative outcomes again. Money was a significant factor in her decision making, in that she had already invested several thousands of dollars towards her OB care. She had an unsuccessful ECV and then felt the OB made the decision for her to have a C/S, "pressuring" her to schedule it "right away" without consulting her partner or arranging her work schedule. She had a severe reaction to this encounter which she describes as an "anxiety attack" (no history of anxiety). She then did a lot of calling and information gathering and met with a homebirth midwife (didn't seem to place much importance on her training/experience), but didn't commit to care because she didn't feel comfortable giving birth in her home environment (a Duplex, surrounded by neighbors, concerned about noise). In the end, she didn't make a decision (neither scheduling the C/S or booking the midwife), and labored most of the day (quite happily) without a birth plan (though knowing she didn't want unassisted birth?!). A doula provided her support and counsel throughout, encouraging her to call her OB (which she appreciated, but never did). Instead, she called the midwife who was at another birth and was told she "could not accommodate her". She said she was preparing to "have a good long cry" about "losing her birth plan" and then was going to go to the hospital for a C/S, but then the midwife called back and said her client was transporting and that she could come give birth in the midwife's cabin. They packed up right away, had an "fantasy"-like, idyllic birth, and she felt positive about her experience, sharing with emotion/pride: "We did it our way."

Personal reflections:

I'm struggling to understand what it means to be exploring the experience of decision-making when women don't necessarily seem to have made a decision. I need to view the DM experience more broadly as a dynamic and evolving process rather than confined to the HCP encounters.

Reflections on sociocultural context of participant:
Dental hygienist
Values: health/wellness (Pilates, yoga, doterra wellness advocate)

Diversions from the interview guide:
I'm going to retire this question given my new, more flexible approach. Did make sure that everything was checked everything off by the end!

Reflections on my interview style:
Reviewing the video, I interjected earlier in the conversation than I remember to redirect her (about 40 min in). Also, it seems like I interrupted her twice to ask a question when she may have been getting ready to speak. I will work on embracing the silence more and wait two breaths before jumping in with a question.

Researcher's triggers/biases/questions/suspicions/assumptions:
Realizing I expected people to be more extreme; they seem… well, normal. Not rigid or fearful or uptight or super-anything, but rather seem pretty even-minded, stable, and rational.
Also, was hard not for me to feel her pain being pulled by her kids and wanting to conclude the interview, but maybe I was just projecting?

Reflections on those diversions/assumptions:
Perhaps because I share many of their values, I'm not able to see the ways in which their viewpoint is "extreme"? Also, I'm such a planner/Type A personality, maybe I'm missing the essence of what this non-decision means to them? Like, I couldn't understand if she said she really would have driving to CA for the MD there… why didn't she? (she didn't seem to be able to answer, and I didn't get it.)

Key points of interaction:
Explaining what she valued in the midwife compared to the OB: honest, gave time and information, listened

Key quotes/phrases:
Have a good cry because "I've lost my birth plan."
After the birth… "We did it our way" (tearful… only strong display of emotion)
Following the DM encounter: "I wanted to go to some secret place and have my baby all alone."

Major themes (possible preliminary codes):
Mourning/grief at loss of plan/ideal birth
Woman - needing a woman's presence instead of her partner… need to explore this more
Instinct
Strength
Anxiety/Fight-or-flight

Denial?

What seemed present but unarticulated?
Fatalism? (In the absence of religious belief?)

Elements of this encounter that support current emerging theory:
"anxiety attack"/fight-or-flight mode clouded her ability to think or make a decision during the DM encounter; she needed space/time
Time pressure is counter-productive ("We gotta schedule this right now." – wanted to consult her partner, arrange her work schedule, have time to think of questions and consult other sources of information to answer them (e.g., her doula, others who have experienced this situation)

Elements that don't align with current emerging theory:
Some people haven't made a decision!! This is now the second person who didn't really have a plan and even changed plans at the last minute, in active labor, because her situation changed. But, she didn't seemed stressed by this, just had a sense that "it was going to work out" but wasn't a "non-planner/non-researcher"; she had done extensive research and consults to figure out her options but then ultimately decided not to decide. I don't think this was refusal/avoidance but rather an intentional decision to defer the decision until the correct option "revealed itself". Not sure how to make sense of that yet.

New questions raised:
Is this just denial? I don't think so… seems more about being open/flexible or needing time and perspective to come to terms with/acceptance of the "best" option somehow.

Changes for future interviews?
Consider asking, Who was part of your decision-making (e.g., FOB/doula/family, etc.) – trying to target individuals involved in DM.

Other Notes:
ECV was done but unsuccessful
FOB supportive and encouraging
Anxiety attack – didn't want to schedule it "right now" and wanted to tell work, talk with husband
Midwife encounter: R/B/A discussed, honest, gave her time, gave information, listened

Theoretical memo

Title: "Leaving the hospital system" and the Decision-Making Encounter

I began with a very simplistic view of perinatal care — I imagined hospital birth prenatal care with OBGYNs/CNMs as one distinct path and homebirth providers as a totally separate and distinct stream. I did not realize there was so much flow between these pathways such as patients receiving care in both "systems" sometimes with no intention of actually continuing on that pathway (such as people being in the hospital system for financial reasons but planning/considering homebirth all along), and alternative models such as midwives that offer both home and hospital birth, an ND/CNM who would be called "doctor", a patient in rural Midwest whose OBGYN didn't do surgery either so needed to refer for consultation for planned C/S, patients from homebirth or birth center practices momentarily pushed momentarily into the hospital system for ECV or breech counseling, etc. For example, many patients at birth centers were funneled into the hospital system rather than the HB system following breech diagnosis, so the conversation wasn't with a hospital-based provider but with an OOH midwife but one who didn't offer HB and instead was connected to an MD within a hospital system, then the patient bounced out once they found a HB provider. For that reason, questions about "when did you leave the hospital system" or references to specific providers were confusing or not applicable for several participants.

I also had a very simplistic understanding about how decision-making occurred. While I knew that it could be across multiple encounters and with multiple providers and could result in "deferring" the decision, I still imagined patients coming into a distinct encounter and coming away feeling like a decision had been made. In many cases, that didn't happen. It isn't ONE decision. It was many different decisions for a constantly evolving situation. That's the difference! It's not, OK, so you have condition A, your options for treatment are B, C, or D. These are the R/B/A. What would you like to do? Instead, it was like, "well, here's where you are now, we recommend this." … "I don't want that. I need to figure out what my options are and explore each one, and the options may change based on my situation as the pregnancy progress, my baby's position or my fluid level changes, or my relationship with my partner is shifting around their feelings/thoughts, or COVID is affecting things, or a new option is revealed."

It's not a decision that is made at any one point. Even in labor, it changes - like P12 who thought she was going to be in a birth center but then labor was fast and furious. Or the one who got a call from the midwife in labor that she could accommodate her. Or P18 who went into labor at 38 weeks and hadn't finalized her plans for homebirth yet. Or P3 who found out she was breech in labor and had to make a fast decision.

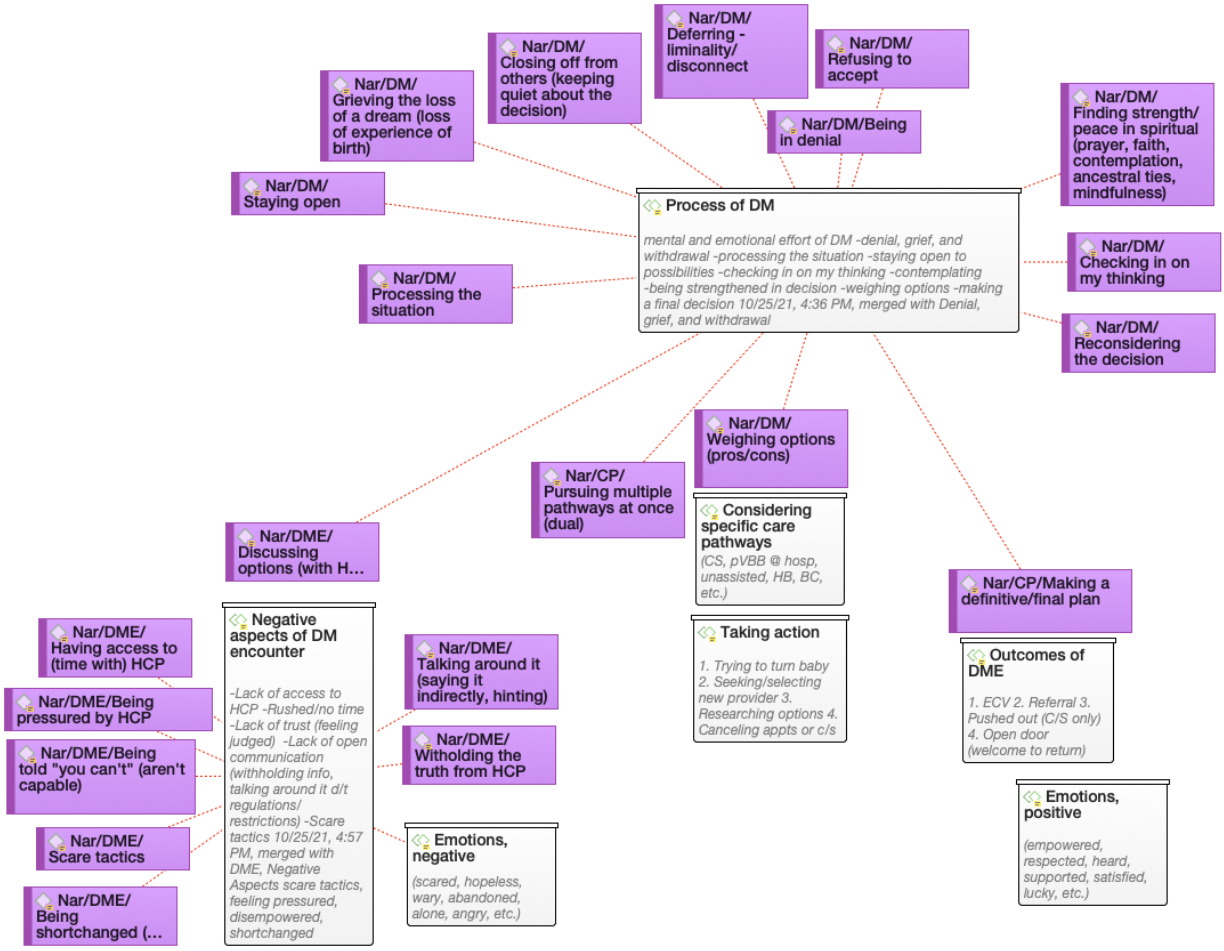
Key take-away: It's not <u>one</u> decision. That's why people can't refer to a singular encounter. It is a multi-phase process of decision-making around a constantly evolving situation.

For further consideration:

- Deciding again - ongoing and dynamic and evolving situation
- Flow between non-distinct pathways
- Complexity of care over time — not linear — more providers/more conversations

Network of code relationships

Figure A-1 Exemplar Code Network



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