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A Theory of Planned Behaviour Analysis of Barriers and Facilitators of Immediate Postpartum Contraception Uptake in Southwestern Uganda

Brenda Ainomugisha¹, Asiphas Owaraganise², Wilson Tumuhimibise³, Patience Naiga⁴, Josephine Asiimwe¹, Arnold Kamugisha¹, Martin Bwengye¹, Nedeem Alinda¹, Musa Kayondo¹, Joseph Ngonzi¹

¹Department of Obstetrics and Gynecology, Mbarara University of Science and Technology, Mbarara, Uganda; ²Division of Clinical Services, Infectious Diseases Research Collaboration, Kampala, Uganda; ³Department of Computer Science, Mbarara University of Science & Technology, Mbarara, Uganda; ⁴Department of Obstetrics and Gynecology, Mbarara Regional Referral Hospital, Mbarara, Uganda

Correspondence: Brenda Ainomugisha, Department of Obstetrics and Gynecology, Mbarara University of Science & Technology, Mbarara, Uganda, Email bainomugisha@must.ac.ug

Background: Closely spaced pregnancies increase the risks of maternal and perinatal morbidity. Initiation of contraception in the immediate postpartum period offers a critical opportunity to address this unmet need during a window when women are in contact with health services. We explored barriers and facilitators of immediate postpartum contraceptive uptake at a tertiary hospital in southwestern Uganda, using the Theory of Planned Behavior.

Methods: We conducted a qualitative descriptive study between August and December 2025 at Mbarara Regional Referral Hospital. Using purposive sampling, we conducted 7 focus group discussions among postpartum women (24), spouses (19), midwives (20), and doctors (12) involved in maternity care using semi-structured interview guides grounded in the TPB. Audio-recorded interviews were transcribed verbatim, translated where necessary, and analysed using thematic analysis. Themes were deductively mapped onto the TPB domains of attitudes, subjective norms, and perceived behavioural control until no new themes emerged across successive focused group discussions.

Results: Participants generally viewed postpartum family planning positively and recognized its role in child spacing, maternal recovery, and family wellbeing. However, uptake was hindered by fears of side effects, misconceptions about infertility and contraceptive failure, concerns regarding immediate postpartum initiation, and limited awareness of methods suitable for use. While partner support facilitated uptake, opposition and community myths discouraged use. Perceived behavioural control was constrained by inadequate counselling, limited provider confidence, poor integration of family planning services within maternity care, and inconsistent availability of contraceptive methods.

Conclusion: Immediate postpartum contraceptive uptake is influenced by interconnected individual, social, and health-system factors. It requires multi-level interventions: integrated contraceptive counselling across the antenatal–postnatal continuum, structured male partner engagement, correction of community misconceptions, training of health care providers, and onsite availability of methods within labour wards and theatres.

Keywords: immediate postpartum contraception, theory of planned behaviour, barriers and facilitators

Introduction

Closely spaced pregnancies remain a major contributor to maternal, perinatal, and neonatal morbidity and mortality globally, particularly in low- and middle-income countries (LMICs).¹ The World Health Organization (WHO) recommends an interval of at least 24 months between a live birth and the next conception to reduce adverse maternal and neonatal outcomes.² Short interpregnancy intervals are associated with increased risks of maternal anaemia, uterine rupture, postpartum haemorrhage, preterm birth, low birth weight, neonatal mortality, and maternal death.^{3,4} These risks

are especially pronounced among women with a previous caesarean section because inadequate healing time increases the likelihood of scar dehiscence and uterine rupture in subsequent pregnancies.^{5,6} Immediate postpartum contraception, defined as initiation of a modern contraceptive method within 48 hours following childbirth provides a critical opportunity for contraceptive initiation to prevent unintended and closely spaced pregnancies, as women are in contact with the health system and may not return for postpartum care.^{7,8}

Despite its proven benefits, immediate postpartum contraceptive uptake remains low in sub-Saharan Africa countries, contributing to a persistently high unmet need for postpartum family planning, which exceeds 60% during the first year after childbirth in many developing.^{9–11} In Southwestern Uganda, the immediate postpartum contraception (IPPC) following caesarean delivery was as low as 6.8%.⁹ Although studies have identified barriers such as limited awareness, fear of side effects, male partner opposition, cultural beliefs, inadequate counselling, commodity shortages, and fragmented service delivery, most have focused on individual determinants or contraceptive prevalence patterns, with limited exploration of how cognitive, social, and structural factors interact to influence immediate postpartum contraceptive uptake among women delivering by caesarean section.^{12,13}

Understanding the gap between contraceptive intentions and actual uptake requires a theoretical framework capable of capturing these multiple levels of influence.¹⁴ The Theory of Planned Behavior (TPB), proposes that behavior is determined by behavioral intention, which is shaped by three interrelated constructs: attitudes toward the behavior, subjective norms, and perceived behavioral control.¹⁵ The TPB was selected because immediate postpartum contraceptive uptake is influenced not only by individual beliefs but also by interpersonal relationships and structural health-system factors. Unlike the Health Belief Model, which primarily focuses on individual perceptions of risk and benefit, TPB explicitly incorporates social influences and perceived control over behavior, making it particularly relevant for understanding postpartum contraceptive decision-making in resource-limited settings. Previous studies have successfully applied TPB to contraceptive intentions in Ethiopia, Kenya, and other settings; however, few studies have used TPB to examine immediate postpartum contraceptive uptake in sub-Saharan Africa, and none have integrated perspectives from postpartum women, spouses, midwives, and doctors within a single analytical framework.^{16,17} In this study, we explored barriers and facilitators of immediate postpartum contraceptive uptake at Mbarara Regional Referral Hospital using the TPB.

Methods

Study Design

We adopted an interpretivist paradigm, recognizing that participants' perspectives are shaped by lived experience, professional context, and sociocultural norms, and that meaning is constructed rather than objectively measured. Consistent with this paradigm, this qualitative study employed semi-structured focused group discussions guided by TPB to systematically examine behavioral, professional, and health-system determinants influencing uptake of postpartum contraception among women delivering at MRRH.¹⁵

Study Setting

The study was conducted at Mbarara Regional Referral Hospital (MRRH), a tertiary teaching and referral hospital located in southwestern Uganda. MRRH serves as the referral centre for the Ankole sub-region, neighbouring districts, countries (Tanzania, Rwanda, Burundi, DRC), and functions as a teaching hospital for Mbarara University of Science and Technology. The hospital conducts a high volume of deliveries annually, 7754 in the financial year (2024/2025) with a cesarean section rate of 57.8%.¹⁸ Maternity services include antenatal care clinics, high risk pregnancy clinic, labour wards, operating theatres, postnatal wards, neonatal services, and family planning clinics. Family planning services are provided through the Family Planning Clinic located within the Maternal and Child Health (MCH) block, which is situated approximately four blocks away from the maternity ward. All methods are free and available most of the years, except for a few stockouts at times. Contraceptive methods are not offered on any of the wards. Although postpartum family planning services are available within the hospital, immediate postpartum contraceptive uptake among women delivering by caesarean section remains low.

Study Period

Data collection was conducted between August and December 2025, with concurrent data analysis undertaken from August 2025 to January 2026.

Study Population and Sampling Procedure

The study population consisted of four categories of participants; (i) Women who had delivered at MRRH in the immediate postpartum period (48 hours), (ii) Midwives working in maternity and postnatal units, (iii) spouses of women who had delivered at MRRH, and (iv) Doctors involved in obstetric and postpartum care. We included multiple participant groups to enable triangulation of perspectives and enhance understanding of individual-, provider-, and system-level influences affecting contraceptive uptake. Participants were purposively selected to ensure variation in age, parity, prior contraceptive use, professional role, and clinical experience (specialists, residents, and interns).

Inclusion Criteria

Women who were 18 years or older, had children, and had delivered at MRRH within the last 48 hours, Spouses of women admitted to the postnatal ward at MRRH, Midwives who are currently working in the antenatal, labour ward, postnatal ward, antenatal clinic, postnatal clinic, and family planning clinic at MRRH, and Specialists, residents, and intern doctors currently in the department of obstetrics and gynecology at MRRH.

Exclusion Criteria

There was no exclusion.

We used purposive sampling to select study participants who could give experiences and knowledge regarding immediate postpartum contraception. Participants were selected to ensure variation in age, parity, prior contraceptive use, professional role, and clinical experience. Sampling continued until thematic saturation was achieved.

Sample Size

A total of 7 focused group discussions (FGDs) were conducted, with each having 10 to 12 members. The final sample size was determined by data saturation rather than predetermined numerical targets.

Data Collection Procedures and Methods

Semi-structured focus group discussion guides were developed based on the study objective, existing literature on postpartum contraception, and the constructs of the Theory of Planned Behavior. The discussion guides explored attitudes toward immediate postpartum contraception, perceived benefits and risks, sociocultural influences and decision-making, male partner involvement, health-system experiences, service delivery barriers and facilitators, and provider experiences and perceptions. Separate guides were developed for women, male partners, the midwives, and the doctors. These guides were reviewed by qualitative research experts and obstetric specialists to ensure content validity and contextual appropriateness. The interviews were conducted by the principal investigator (AB) who is an obstetrician assisted by two research assistants who are midwives with prior qualitative research training and experience in interviewing women. No prior relationship existed between the interviewers and participants before recruitment. Interviewers approached eligible individual women, spouses, and clinicians, confirmed eligibility, explained the study purpose and procedures, obtained written informed consent. Face-to-face semi-structured focused group discussions were conducted in private room within the hospitals using interview guides developed using the three constructs of TPB and tailored for each participant group ([Supplementary Material 1](#): FGD guides). Interviews lasted 40–60 minutes (median 51 minutes), were audio-recorded, and accompanied by detailed field notes documenting contextual information, non-verbal cues, and preliminary analytic impressions. These field notes were integrated during analysis to improve contextual interpretation of findings. The research team interfaced with participants only once. Interview guides were pilot-tested with two groups of postpartum women and iteratively refined to ensure clarity and depth before data collection began. FGDs for women and the spouses were conducted in Runyankole/Rukiga while that for health workers were in English.

Data Management

Audio recordings were transferred to password-protected computers immediately after data collection. Recordings conducted in Runyankole (commonly spoken local direct in Southwestern Uganda) were translated into English and transcribed verbatim by trained research personnel familiar with both languages. All transcripts were de-identified and assigned unique group identifiers, including FGD 1 and FG2 for women, FGD 3 and FGD 4 for spouses, FGD 5 and FGD 6 for midwives and FGD 7 for doctors. To ensure transcription accuracy, the PI randomly picked and verified three of the seven transcripts, against audio recordings. Summary sheets were completed to document emerging themes, illustrative quotes, and analytic reflections.

Data Analysis and Rigor of the Study

Data were analysed using thematic analysis guided by Braun and Clarke's six-step framework and informed by the Theory of Planned Behavior.¹¹ To ensure analytic rigor, we followed a systematic, multi-stage process. Two researchers (AB and AO) first immersed themselves in the data through repeated readings of transcripts and structured memo-writing. We then applied a hybrid coding approach using Dedoose (version 10),¹⁹ in which text segments were coded deductively to the 3 constructs of TPB while allowing for inductive themes to emerge from participants' narratives. To ensure consistency, all transcripts were double-coded; discrepancies were resolved through iterative consensus discussions, with a third senior analyst (WT) consulted as necessary. We employed thematic analysis to map these factors to the TPB constructs, triangulating perspectives from women, spouses, and clinicians to identify convergent and divergent patterns. To mitigate potential bias stemming from our professional backgrounds, we held regular reflexive sessions with interviewers, and co-authors audited the preliminary themes. We followed the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines ([Supplementary Material 2: COREQ Checklist](#)).

Analysis was conducted in several sequential stages: The research team repeatedly read transcripts and field notes while listening to audio recordings to gain immersion and familiarity with the data. Initial observations and reflective notes were documented throughout this stage. We then coded the data manually using a combined deductive-inductive approach. The deductive approach was informed by TPB constructs and inductive approach allowing emergence of new themes from the data. Deductive codes included attitudes, subjective norms, perceived behavioural control and behavioural intention. Additional inductive codes emerging from participant narratives were added iteratively. The related codes were grouped into broader categories and potential themes. Subthemes representing barriers and facilitators within each major theme were also developed. The themes were across all transcripts to ensure internal consistency, distinctiveness between themes, and adequate representation of participant perspectives. The research team held iterative analytic meetings to refine interpretations and resolve coding discrepancies. The themes and subthemes were clearly defined and linked back to TPB constructs and study objectives. Illustrative participant quotations were selected to support analytic interpretations.

Findings were interpreted within the broader context of the TPB theory, existing literature on postpartum family planning and maternal health systems in low-resource settings. We compared perspectives across the different FGDs to identify convergence and divergence of perspectives. The principal investigator is an obstetrician practising at the study site. To manage potential influence on participant responses, the research team acknowledged their clinical roles at the outset of each FGD and emphasised that all responses would be confidential and would not affect care. A reflexivity log was maintained throughout data collection and analysis. To ensure rigor and trustworthiness of the study, we used multiple participant groups, triangulation of perspectives, verbatim quotations and prolonged engagement with the data. We also standardized discussion guides, a detailed documentation of analytic decisions, iterative coding and peer debriefing.

Ethical Considerations

Ethical approval was obtained from the Mbarara University Research Ethics Committee (MUST-2024-1569), Uganda National Council of Science and Technology (HS967ES), and administrative permission was obtained from MRRH. All participants provided written informed consent before participation and they were informed that participation was voluntary, they could withdraw at any time without consequences and that their responses would remain confidential.

No personal identifiers were included in transcripts or reports. The audio recordings and transcripts were securely stored in password-protected files accessible only to the principal investigator.

Results

A total of seven FGDs were conducted, and seventy-five (75) participants were included in the study, comprising 24 postpartum women, 19 spouses, 20 midwives, and 12 doctors as shown in Table 1 and Table 2. Among the doctors, two were obstetricians, seven were residents (in training to be obstetricians), and three were intern doctors. Most participants were aged between 25 and 34 years (39/75, 52.0%), which also represented the median age category across all participant groups. Among postpartum women and spouses, the majority had primary or secondary education, whereas all midwives and doctors had attained tertiary education. Most participants were married (62/75, 82.7%) and were female (49/75, 65.3%). Nearly half of the postpartum women (11/24, 45.8%) had more than four children. Most midwives (13/20, 65.0%) and nearly half of the doctors (5/12, 41.7%) had more than five years of experience in maternity care. Previous use of contraception was reported by half of postpartum women (12/24, 50.0%), over one-third of spouses (7/19, 36.8%), most midwives (14/20, 70.0%), and two-thirds of doctors (8/12, 66.7%). Of the postpartum women, two had taken up contraception immediately postpartum, one had a bilateral tubal ligation while another had the cyanapress contraceptive injection.

Table 1 Socio-Demographic Characteristics of Postpartum Women and Spouses (N=43)

Characteristics	Post-Partum Women (N=24)	Spouses (N=19)
Age		
18 to 24	7	3
25 to 34	10	11
34 to 45	7	5
Education		
No formal education	5	3
Primary	9	6
Secondary	7	5
Tertiary	5	5
Marital status		
Unmarried	4	0
Married	20	19
Number of children		
1 to 2	5	5
3 to 4	8	11
> 4	11	3
3 to 5	0	0
>5 years	0	0
Previous contraceptive use		
Yes	12	7
No	12	12

Table 2 Socio-Demographic Characteristics of Doctors and Midwives (N=32)

Characteristics	Midwives (N=20)	Doctors (N=12)
Age		
18 to 24	0	2
25 to 34	10	8
34 to 45	10	2
Sex		
Male	0	7
Female	20	5
Marital status		
Unmarried	2	7
Married	18	5
Number of children		
0	2	2
1 to 2	7	3
3 to 4	7	2
> 4	4	0
Years of experience in maternity service		
1 to 2 years	1	2
3 to 5	6	5
>5 years	13	5
Previous contraceptive use		
Yes	14	8
No	6	4

TPB- Guided Barriers and Facilitators of Immediate Postpartum Contraceptive Uptake

Thematic analysis of the seven focus group discussions mapped participant experiences across the three constructs of the Theory of Planned Behaviour (TPB): attitudes (behavioural beliefs), subjective norms (normative beliefs), and perceived behavioural control (control beliefs). While participants generally recognized the importance of postpartum family planning, negative behavioural beliefs, restrictive social influences, and health-system limitations often weakened intentions to initiate contraception before discharge. Conversely, positive beliefs regarding child spacing, supportive social relationships, and enabling health-system factors strengthened women's intentions and ability to adopt immediate postpartum contraception.

The Theory of Planned Behavior (TPB) posits that an individual's intention to perform a behavior is determined by their attitudes toward the behavior, subjective norms, and perceived behavioral control, which collectively influence behavioral outcomes.²⁰ Attitudes reflect an individual's evaluation of the behavior and its anticipated outcomes. Subjective norms refer to perceived expectations and approval from significant others such as partners, family members, peers, and healthcare providers. Perceived behavioral control reflects an individual's perception of their ability to perform the behavior in the presence of facilitating or constraining factors as illustrated in Figure 1.²⁰

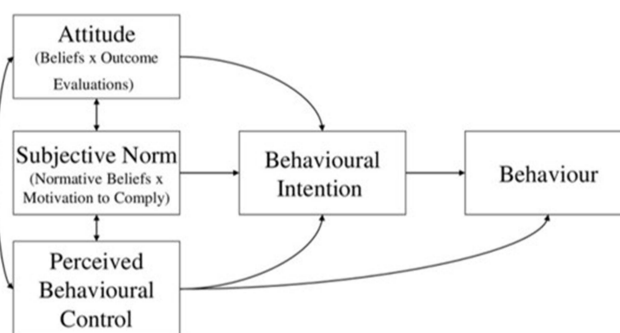


Figure 1 Theory of Planned Behavior (Adopted from: Ajzen, I., 1991).²⁰

In this study, the TPB guided both data collection, through construct-informed interview guides and thematic analysis, with each emergent theme mapped to the construct or constructs that best captured its theoretical basis. This approach enabled a systematic, theory-grounded account of the barriers and facilitators shaping the uptake of immediate postpartum contraception. A summary of TPB -mapped barriers and facilitators is presented in [Supplementary Material 3](#).

Barriers to Immediate Postpartum Contraceptive Uptake

Negative Behavioral Beliefs: Fear of Side Effects and Perceived Health Risks

Negative behavioural beliefs emerged as one of the most significant barriers to immediate postpartum contraceptive uptake. Across women and spouses, attitudes toward contraception were strongly influenced by concerns regarding side effects and previous negative experiences with contraceptive methods. Participants frequently associated contraception with excessive bleeding, weight changes, dizziness, infertility, fibroids, and perceived contraceptive failure. These experiences shaped negative attitudes toward contraceptive use and reduced confidence in initiating a method immediately after childbirth. Importantly, participants often relied on personal experiences and experiences of close relatives when evaluating contraceptive safety, making these concerns particularly influential. The findings suggest that anticipated harms frequently outweighed perceived benefits, resulting in hesitation and delayed contraceptive decision-making. One spouse explained:

Whenever she would use the implant, she would be like she is completely mad. She would even become very slim. Whenever she would use the injectaplan, this time she would become obese and fail even to walk to town. (Spouses FGD 4)

This quotation illustrates how perceived side effects contributed to negative attitudes toward contraception. The participant interpreted these experiences as evidence that contraceptive methods posed significant health risks, reducing confidence in future use.

Another spouse described repeated adverse experiences with multiple contraceptive methods:

The implant caused too much bleeding. We changed to injections, but she still bled continuously and complained of a lot of pain. Later she tried pills, but she would become dizzy and unable to do her work. That is when we failed with family planning. (Spouses FGD 4)

The quotation highlights how repeated negative experiences reinforced fears regarding contraceptive safety and contributed to discontinuation of use. Taken together, these findings demonstrate that negative behavioural beliefs regarding side effects generated *unfavourable attitudes* toward immediate postpartum contraception, thereby weakening intentions to initiate contraception before discharge.

Restrictive Subjective Norms: Partner Approval and Community Expectations

Normative beliefs concerning the expectations of significant others strongly influenced contraceptive decisions. Women frequently described family planning as a decision requiring consultation with their husbands, while healthcare providers observed that many women delayed decisions until discussing options with their partners. In addition to partners, mothers-in-law, relatives, and community members influenced contraceptive decisions through

advice, expectations, and shared experiences. These social influences often created uncertainty regarding whether immediate postpartum contraception would be accepted within the household. Consequently, even women who personally supported contraception sometimes postponed uptake because of perceived social expectations. A midwife explained:

Most of them come with their mothers-in-law or the women who escort them. They do not come with their husbands. So, it becomes difficult to talk about family planning because they tell you they first have to discuss with their husbands. (Midwives FGD 5)

This quotation demonstrates how partner absence during maternity care encounters limited opportunities for shared decision-making and contributed to delays in contraceptive uptake. Overall, restrictive subjective norms acted as a barrier to immediate postpartum contraceptive uptake by limiting women's autonomy and delaying timely contraceptive decisions.

Low Perceived Behavioral Control: Knowledge Gaps and Health-System Constraints

Many participants questioned the necessity of initiating contraception immediately after delivery because they believed they were naturally protected from pregnancy during the early postpartum period. Women commonly cited the absence of menstruation, exclusive breastfeeding, and the expectation that sexual intercourse would not resume for several months as reasons for postponing contraceptive initiation. One mother said,

Why should I take family planning now? I have just delivered. I will first heal, breastfeed my baby, and my periods have not even returned. (Postpartum Women FGD 1).

This was not unique to only mothers, one doctor also mentioned that,

Why the rush? There are several other opportunities for family planning on the recurrent visits because as of now, they are still protected by breastfeeding (Doctors FGD 7).

These beliefs reduced women's perceived need to make a contraceptive decision before hospital discharge. Rather than viewing the immediate postpartum period as a critical opportunity for pregnancy prevention, participants perceived that they retained sufficient time to initiate contraception later, once menstruation resumed or sexual activity recommenced. This perception diminished the perceived behavioural control necessary to act on providers' recommendations for immediate postpartum contraception.

Although a few participants were aware that pregnancy can occur before the return of menses, this knowledge was uncommon, highlighting important gaps in understanding postpartum fertility.

Control beliefs regarding women's ability to access and successfully use contraception also influenced perceived behavioural control. Participants identified limited knowledge, inadequate counselling, provider knowledge gaps, and unavailability of contraceptive commodities as important barriers. Many women were unaware that modern contraceptive methods could be initiated immediately after childbirth, while some healthcare providers acknowledged limited familiarity with postpartum-specific methods. Participants also described missed opportunities resulting from lack of contraceptive commodities within labour wards and postnatal units. Together, these factors reduced confidence in accessing and using contraception during the immediate postpartum period. When discussing postpartum contraceptive options, one woman stated:

For me I only know the breastfeeding method. (Postpartum Women FGD 1).

With limited knowledge about immediate postpartum contraception, certainly their ability to make informed decisions is constrained. Healthcare providers similarly described provider-level barriers:

I actually recently discovered that there is a specific IUD for that. It was the first time we were seeing it during family planning training. (Doctors FGD 7).

This quotation suggests that provider knowledge gaps may also reduce opportunities for women to receive comprehensive counselling regarding immediate postpartum contraception. These findings indicate that low perceived behavioural control arising from knowledge deficits and health-system barriers reduced women's ability to translate contraceptive intentions into actual uptake.

Facilitators of Immediate Postpartum Contraceptive Uptake

Positive Behavioral Beliefs: Recognition of the Benefits of Child Spacing

Positive behavioural beliefs generated favourable attitudes toward immediate postpartum contraception. Participants consistently recognized the role of family planning in improving maternal recovery, preventing closely spaced pregnancies, promoting child wellbeing, and enhancing family economic stability. Women and spouses frequently described contraception as a means of ensuring that children receive adequate care and resources while protecting maternal health. These perceived benefits strengthened motivation to adopt contraception and increased willingness to consider immediate postpartum methods. One woman explained:

Family planning helps us to bear children at the time we want and helps us produce children whom we can manage to take care of. (Postpartum Women FGD 1).

This quotation reflects positive attitudes toward contraception arising from recognition of its role in achieving desired family size and improving child welfare. Similarly, a spouse noted:

If she had used family planning it would have given her some time to help her heal first after the operation. (Spouses FGD 3).

This statement highlights awareness of the importance of postpartum recovery and birth spacing following cesarean delivery. These findings suggest that favourable behavioural beliefs regarding maternal and child health benefits strengthen positive attitudes toward immediate postpartum contraceptive uptake.

Supportive Subjective Norms: Partner Support and Shared Fertility Planning

Although social influences sometimes acted as barriers, supportive subjective norms also facilitated contraceptive uptake. Several participants described family planning as a shared responsibility that should involve open communication between partners. When husbands supported contraception, women appeared more willing to adopt postpartum methods. Healthcare providers similarly emphasized the importance of male involvement in strengthening contraceptive decision-making. One spouse stated:

If my wife and I have agreed to give birth, then we can also agree on family planning and spacing our children. (Spouses FGD 3).

This quotation demonstrates how partner support can reinforce positive contraceptive intentions and facilitate uptake. Another participant emphasized joint responsibility in managing contraceptive challenges:

Because a problem may occur if one person decides to use it alone, but if both are aware, then you know how to deal with the effects. (Spouses FGD 3).

This statement highlights how supportive social relationships can promote confidence and facilitate informed contraceptive decisions. Overall, supportive subjective norms strengthened behavioural intentions by creating an environment in which contraception was accepted and encouraged.

High Perceived Behavioral Control: Counselling, Provider Support, and Service Availability

Participants identified several factors that enhanced perceived behavioural control and facilitated contraceptive uptake. Repeated counselling, improved provider knowledge, and availability of contraceptive methods within maternity units increased confidence in accessing contraception. Healthcare providers emphasized the importance of introducing contraceptive information throughout antenatal, intrapartum, and postpartum care rather than waiting until discharge. Participants also highlighted the need for contraceptive commodities to be readily available at the point of care. A midwife explained:

Our mothers are lacking information. If we can improve health education in antenatal care, I think it will work for us. (Midwives FGD 5).

This quotation demonstrates how improved counselling can strengthen women's confidence in making informed contraceptive decisions. Similarly, a doctor stated:

The postpartum IUD especially is not available in our theatre or labour suites. If it was available and people knew it was there, they would offer it more often. (Doctors FGD 7)

This quotation highlights the importance of commodity availability in enabling providers to translate counselling into actual service delivery. These findings indicate that high perceived behavioural control was facilitated by access to information, provider support, and contraceptive commodities. These factors increased the likelihood that women who intended to use contraception would successfully initiate a method before discharge.

Discussion

Although women, spouses, midwives, and doctors generally recognized the value of immediate postpartum family planning, uptake was constrained by fear of side effects, misinformation, partner dynamics, poor antenatal preparation, poor provider knowledge and skill, and weak integration of contraceptive services into maternity care. Applying the TPB to immediate postpartum contraceptive uptake revealed both the strengths and limitations of the framework in this context. While the three TPB constructs, attitudes, subjective norms, and perceived behavioural control, successfully mapped onto participant narratives, the findings suggest that perceived behavioural control was the most proximal determinant of uptake failure, driven less by individual self-efficacy than by structural system factors: commodity absence, provider skill gaps, and fragmented service delivery.

Participants expressed generally positive attitudes toward family planning as a strategy for child spacing, maternal recovery, and economic stability. Women described contraception as a way to avoid pregnancies they were not ready for, while husbands emphasized the financial burden of raising many children. These findings are consistent with global evidence showing that contraception improves maternal and child health by reducing unintended pregnancies and short interpregnancy intervals.^{21,22} Cleland et al reported that contraceptive use has substantially reduced maternal mortality by preventing high-risk and unintended pregnancies.²³ Similarly, WHO identifies the immediate postpartum period as a critical opportunity to address unmet need for contraception and reduce adverse maternal and newborn outcomes.^{11,24} Unfortunately, favourable attitudes were weakened by fear of side effects. Women and husbands repeatedly linked contraception to bleeding, infertility, fibroids, weight changes, reduced sexual pleasure, and general bodily weakness. This mirrors findings from qualitative studies in Uganda, Ethiopia, and Nigeria, where experience or perceived fear of side effects and myths about different contraception methods were major barriers to postpartum uptake.^{12,13,25–27}

A particularly important finding was uncertainty about the timing of contraception after caesarean delivery. Some women believed breastfeeding or delayed return of menses protected them from pregnancy, while some clinicians questioned the urgency of immediate provision. This reflects a broader pattern in LMICs where many postpartum women are at risk of pregnancy but do not perceive themselves to need contraception.²⁸ Moore et al, in an analysis of 21 LMICs, described substantial missed opportunities for family planning among postpartum women despite high pregnancy risk.²⁹ In the context of a high-volume caesarean section ward with a 57.8% CS rate, this finding is particularly consequential. Women undergoing caesarean delivery have extended postnatal contact with the health system yet are still discharged without contraception, suggesting that the barrier is not access per se but the cognitive and structural factors shaping whether that contact is used for contraceptive provision. On the centrally, in Uganda, the median length of a high degree of protection against conception largely from lactational amenorrhea is about 10.9 months.³⁰ Knowledge of this could potentially influence the perceived need for immediate postpartum contraception.

The findings show that postpartum contraceptive intention was strongly shaped by partner approval and couple communication. Women often framed contraceptive decisions as requiring discussion with husbands, while some husbands expressed support for family planning after witnessing the consequences of closely spaced births. This is consistent with studies conducted in Uganda that showed that male involvement can facilitate contraceptive use when men provide emotional, financial, and decision-making support.^{31–33} At the same time, male involvement was also a barrier when women feared partner disapproval or when husbands distrusted women's contraceptive use. Some men in the discussions reported feeling deceived when wives discontinued contraception or became pregnant unexpectedly. Similar concerns have been reported in Uganda, where women's postpartum contraceptive uptake is affected by the absence of male partners at delivery and the need for partner agreement before method initiation.^{34,35}

Community norms also influenced contraceptive behaviour. Participants described rumours from peers, relatives, and community members linking contraception to infertility, uterine disease, and death. These findings align with previous Ugandan research showing that community misinformation and fear of social judgment undermine postpartum contraceptive uptake.^{36–38} The role of mothers-in-law and birth companions in shaping postpartum decisions also suggests that interventions focused only on women may be insufficient; broader community sensitization may be needed.

Perceived behavioural control emerged as a major determinant of uptake. Many women lacked accurate knowledge of methods that could be used immediately postpartum. Some women knew only breastfeeding as an immediate postpartum option, while others believed contraception should begin only after menstruation returned. This limited knowledge reduced women's confidence to request or accept contraception before discharge. Health workers also identified gaps in service readiness. Doctors and midwives reported that postpartum IUDs and other methods were not consistently available in labour wards, theatres, or postnatal wards. Some clinicians were uncertain about postpartum IUD insertion, expulsion, infection risk, and follow-up requirements. These findings are consistent with other studies in the USA, India, Thailand, and Uganda showed that missed opportunities occur across the maternity-care continuum because of insufficient knowledge and skills, inconsistent counselling and access to commodities and integration of family planning into antenatal, delivery, and postnatal services.^{38–42} Immediate postpartum contraception is especially important after caesarean delivery because the woman is already in contact with the health system and may not return for postnatal family planning. Moniz et al argue that the immediate postpartum period is a strategic time to offer LARC because women are known not to be pregnant, may be highly motivated, and face access barriers after discharge.⁷

Recommendations

Contraceptive counselling should be integrated across the continuum of care, antenatal, intrapartum, and postpartum period, and should include method-specific counselling on side effects, fertility return, breastfeeding misconceptions, and immediate postpartum eligibility.

There is also need for couple-focused counselling should be strengthened because male partners strongly influence contraceptive decisions.

Contraceptive commodities should be available in labour wards, theatres, and postnatal wards so that women who decide before discharge can receive a method without referral delays.

Health workers need refresher training on postpartum implants, IUDs, BTL counselling, eligibility criteria, and management of side effects.

Policymakers should incorporate the identified barriers and facilitators into national postpartum family planning policies, clinical guidelines, and implementation strategies. This should include strengthening provider capacity, ensuring consistent availability of contraceptive commodities, promoting partner and community engagement, and integrating comprehensive contraceptive counselling into routine antenatal, intrapartum, and postnatal care to improve uptake of immediate postpartum contraception.

Limitations

This study has some limitations. Data were collected at a single tertiary referral hospital in southwestern Uganda and may not represent experiences at lower-level facilities or in community settings. Focus group discussions may have introduced social desirability bias, particularly among male partners and healthcare providers, however the findings are not designed to only be generalizable but also provide in-depth contextual understanding of barriers and facilitators at such a level of care.

Conclusion

This study demonstrates that immediate postpartum contraceptive uptake is not primarily an individual behavioural failure but the product of interconnected attitudinal, social, and structural constraints. Persistent myths, fear of side effects, partner gatekeeping, provider knowledge gaps, and commodity inaccessibility collectively limit women's ability to initiate contraception before hospital discharge, even when intention is present. Effective interventions must address all three TPB domains simultaneously, including correcting misconceptions through antenatal education, engaging spouses in structured counselling, and integrating contraceptive commodities and skilled providers directly into labour wards and theatres.

Declaration of Generative AI and AI-Assisted Technologies

During the preparation and revision of this manuscript, the authors used Grammarly, generative AI (version 14.1275.0), and ChatGPT (GPT-5.6 Sol, OpenAI) as a generative artificial intelligence tools to assist with language refinement, grammatical editing, and improving clarity. The tool was not used to generate or fabricate participant data or quotations. Following the use of the AI-assisted tool, the authors critically reviewed and edited the manuscript and take full responsibility for the originality, accuracy, integrity, and final content of the published article. The authors reviewed the applicable terms of use of the AI tool and confirm its suitability for publication.

Data Sharing Statement

The de-identified dataset can be obtained on reasonable request from the corresponding author, as participants were not consented for the public sharing of their data.

Ethical Approval and Consent

This study was conducted in accordance with the Declaration of Helsinki. Ethical approval was granted by the Mbarara University of Science &, with a reference MUST-2024-1569 and the Uganda National Council of Science and Technology HS967ES. Administrative clearance was obtained from the executive director of MRRH. Written informed consent was obtained from each participant in their preferred language, English, or Runyankole (the predominant local language in Southwestern Uganda) prior to data collection including publication of anonymized responses/direct quotes. Data confidentiality was strictly maintained through restricted access to identifiable study documents and digital files to the investigator and the research consultants. All manuscript data were de-identified to maintain participant confidentiality.

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Author Contributions

All authors made a significant contribution to the work reported, that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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Disclosure

The authors declare that they have no competing interest.

References

1. Ali MM, Bellizzi S, Shah IH. The risk of perinatal mortality following short inter-pregnancy intervals—insights from 692 402 pregnancies in 113 demographic and health surveys from 46 countries: a population-based analysis. *Lancet Glob Health*. 2023;11(10):e1544–e1552. doi:10.1016/S2214-109X(23)00359-5
2. Organization WH. *WHO Recommendations on Health Promotion Interventions for Maternal and Newborn Health 2015*. World Health Organization; 2015.
3. Hutcheon JA, Nelson HD, Stidd R, et al. Short interpregnancy intervals and adverse maternal outcomes in high-resource settings: an updated systematic review. *Paediatric Perinatal Epidemiol*. 2019;33(1):O48–O59. doi:10.1111/ppe.12518
4. Stakeeva C, Zholdosbekova G, Topcu EG, et al. Interpregnancy intervals and maternal and neonatal outcomes: a retrospective cohort study. *Int J Gynecol Obstet*. 2026. doi:10.1002/ijgo.70939

5. Dong H, Chi J, Wang W, et al. Association between interpregnancy interval and maternal and neonatal adverse outcomes in women with a cesarean delivery: a population-based study. *BMC Pregnancy Childbirth*. 2023;23(1):284. doi:10.1186/s12884-023-05600-x
6. Chiossi G, Lai Y, Landon MB, et al. Timing of delivery and adverse outcomes in term singleton repeat cesarean deliveries. *Obstetrics Gynecol*. 2013;121(3):561–569. doi:10.1097/AOG.0b013e3182822193
7. Moniz M, Chang T, Heisler M, et al. Immediate postpartum long-acting reversible contraception: the time is now. *Contraception*. 2017;95(4):335–338. doi:10.1016/j.contraception.2016.11.007
8. Vernon R. Meeting the family planning needs of postpartum women. *Studies in Family Planning*. 2009;40(3):235–245. doi:10.1111/j.1728-4465.2009.00206.x
9. Ainomugisha B, Kayondo M, Owaraganise A, et al. Assessment of immediate postpartum contraception uptake among women delivering by cesarean section in Southwestern Uganda. *Cureus*. 2026;18(5).
10. Nakiwunga N, Kakaire O, Ndikuno CK, et al. Contraceptive uptake and associated factors among women in the immediate postpartum period at Kawempe Hospital. *BMC Women's Health*. 2022;22(1):281. doi:10.1186/s12905-022-01856-1
11. Cleland J, Shah IH, Benova L. A fresh look at the level of unmet need for family planning in the postpartum period, its causes and program implications. *Int Perspectives Sexual Reproduct Health*. 2015;41(3):155–162. doi:10.1363/intsexrephea.41.3.155
12. Holman ES. “[The Bleeding] Makes Us Not Able to Have Sex, [But] We Have Gotten so Intimate and Passionate About Each Other”: Contraceptive Side Effects, Couple Intimacy, and Method Discontinuation in Urban Nigeria. Johns Hopkins University; 2020.
13. Adama O. “They will be like a person with a disease”: a qualitative investigation of variation in contraceptive side-effect experiences 2 in Central Oromia, Ethiopia 3.
14. Agha S, Morgan B, Archer H, et al. Understanding how social norms affect modern contraceptive use. *BMC Public Health*. 2021;21(1):1061. doi:10.1186/s12889-021-11110-2
15. Ajzen I, Schmidt P. Changing behavior using the theory of planned behavior. *Handbook Behav Change*. 2020;23:17–31.
16. Fantaye FT, Sene KM, Damtew SA. Contraceptive use intention and determinants among nonuser reproductive-aged married women in Ethiopia based on the theory of planned behavior. *Discover Public Health*. 2025;22(1):337. doi:10.1186/s12982-025-00723-2
17. Shisanya MS, Kipmerewo M, Morema E, et al. Assessing the application of adapted theory of planned behaviour in predicting postpartum family planning intentions in a pragmatic randomized control trial in Western Kenya. *PLoS One*. 2025;20(2):e0315029. doi:10.1371/journal.pone.0315029
18. Obstetrics Department MRRH. Must/MRRH department of obstetrics and gynaecology FY 2024/25 report. 2025.
19. SocioCultural Research Consultants L. Dedoose. LLC: SocioCultural Research Consultants; 2026.
20. Ajzen I. *The Theory of Planned Behaviour: Reactions and Reflections*. Taylor & Francis; 2011:1113–1127.
21. Heller R, Cameron S, Briggs R, et al. Postpartum contraception: a missed opportunity to prevent unintended pregnancy and short inter-pregnancy intervals. *J Family Plan Reproduct Health Care*. 2016;42(2):93–98. doi:10.1136/jfprhc-2014-101165
22. Ahmed S, Ali M, Shah I, et al. Effect of maternity care improvement, fertility decline, and contraceptive use on global maternal mortality reduction between 2000 and 2023: results from a decomposition analysis. *Lancet Glob Health*. 2026;14(1):e33–e48. doi:10.1016/S2214-109X(25)00409-7
23. Cleland J, Conde-Agudelo A, Peterson H, et al. Contraception and health. *Lancet*. 2012;380(9837):149–156. doi:10.1016/S0140-6736(12)60609-6
24. McKinney J, Keyser L, Clinton S, et al. ACOG committee opinion No. 736: optimizing postpartum care. *Obstetrics Gynecol*. 2018;132(3):784–785. doi:10.1097/AOG.0000000000002849
25. Zimmerman LA, Sarnak DO, Karp C, et al. Measuring experiences and concerns surrounding contraceptive induced side-effects in a nationally representative sample of contraceptive users: evidence from PMA Ethiopia. *Contraception*. 2022;4:100074. doi:10.1016/j.conx.2022.100074
26. Zimmerman LA, Sarnak DO, Karp C, et al. Association between experience of specific side-effects and contraceptive switching and discontinuation in Uganda: results from a longitudinal study. *Reproductive Health*. 2021;18(1):239. doi:10.1186/s12978-021-01287-5
27. Willcox M, King E, Fall E, et al. Barriers to uptake of postpartum long-acting reversible contraception: qualitative study of the perspectives of Ugandan health workers and potential clients. *Stud Family Planning*. 2019;50(2):159–178. doi:10.1111/sifp.12088
28. Nakkazi J, Buhuguru RN, Wandui CS, et al. Determinants and barriers of modern family planning uptake among postpartum mothers at selected regional referral hospitals in Uganda: a cross-sectional study. *Reproductive Health*. 2025;22(1):192. doi:10.1186/s12978-025-02137-4
29. Moore Z, Pfitzer A, Gubin R, et al. Missed opportunities for family planning: an analysis of pregnancy risk and contraceptive method use among postpartum women in 21 low-and middle-income countries. *Contraception*. 2015;92(1):31–39. doi:10.1016/j.contraception.2015.03.007
30. Eustis-Guthrie S, Williamson B, Shah I. Does prolonged postpartum insusceptibility undercut the impact of postpartum family planning programming in Sub-Saharan Africa? *Reproductive Health*. 2025;22(1):132. doi:10.1186/s12978-025-02056-4
31. Nyasulu B, Ngomi N, Kibonire RA. Men's participation in decision-making for long-acting reversible contraceptive methods: a mixed-method study in Kampala, Uganda. *J Nurs Adv Clin Sci*. 2026;3(2):80–87.
32. Kabagenyi A, Jennings L, Reid A, et al. Barriers to male involvement in contraceptive uptake and reproductive health services: a qualitative study of men and women's perceptions in two rural districts in Uganda. *Reproductive Health*. 2014;11(1):21. doi:10.1186/1742-4755-11-21
33. Kayongo E. *What Does Your Partner Want? Using a Gender Equality Lens to Assess Partner Support and Involvement in Family Planning in Uganda*. Research Square; 2022.
34. Mulema J. Postpartum family planning in East Africa: uptake, unmet need, and the role of couple communication: a Synthesis of recent evidence. *Int J Soci Sci Educ Res*. 2025;7:800–807. doi:10.33545/26649845.2025.v7.i2j.440
35. Kamwesigye A, Amanya D, Nambozo B, et al. Barriers and enablers to utilisation of postpartum long-acting reversible contraception in Eastern Uganda: a qualitative study. *Contracept Reproduct Med*. 2024;9(1):49. doi:10.1186/s40834-024-00308-5
36. Diamond-Smith N, Campbell M, Madan S. Misinformation and fear of side-effects of family planning. *Culture Health Sexuality*. 2012;14(4):421–433. doi:10.1080/13691058.2012.664659
37. Birabwa C, Amongin D, Waiswa P, et al. Influence of social networks on women's contraceptive decision-making and action: a qualitative study in two districts in Uganda. *BMC Public Health*. 2025;25(1):2286. doi:10.1186/s12889-025-23473-x
38. Nantale R. *Barriers and Enablers to Utilisation of Postpartum Long-Acting Reversible Contraception in Eastern Uganda: A Qualitative Study*. Research Square (Research Square); 2024.
39. Thompson EL, Vamos CA, Logan RG, et al. Patients and providers' knowledge, attitudes, and beliefs regarding immediate postpartum long-acting reversible contraception: a systematic review. *Women Health*. 2020;60(2):179–196. doi:10.1080/03630242.2019.1616042

40. Botfield JR, Tulloch M, Contziu H, et al. Contraception provision in the postpartum period: knowledge, views and practices of midwives. *Women Birth*. 2021;34(1):e1–e6. doi:10.1016/j.wombi.2020.07.013
41. Moniz MH, Roosevelt L, Crissman HP, et al. Immediate postpartum contraception: a survey needs assessment of a national sample of midwives. *J Midwifery Women's Health*. 2017;62(5):538–544. doi:10.1111/jmwh.12653
42. Sothornwit J, Lumbiganon P, Saranrittichai K, et al. Barriers and facilitators to implementing immediate postpartum contraceptive implant programs: a formative implementation research. *Int J Women's Health*. 2022;Volume 14:945–956. doi:10.2147/IJWH.S370012

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