JOURNAL OF CLINICAL CARE AND MEDICAL ADVANCEMENT



https://doi.org/10.58460/jcma.v2i1.116

ORIGINAL ARTICLE



Factors Influencing Preference for Repeat Elective Cesarean Section Among Low-Risk Women with Previous Unplanned Cesarean Delivery at Kijabe Hospital in Kenya

Liliane KADIEVI MUGODO^{1*}, Boaz NIYINYUMVA¹, and Stephanie ONGUKA¹

¹Department of Family Medicine, School of Medicine and Health Sciences, Kabarak University

*Corresponding author: lkmugodo@gmail.com

Article History Submitted: 18th October 2024 Accepted: 17th November 2024 Published Online: 20th November 2024



ABSTRACT

Cesarean section (CS) rates have risen significantly over the past decade, with many countries surpassing the World Health Organization's standard of 10-15%. Women with a previous cesarean- Robson group 5contribute substantially to this increase. For low-risk women, vaginal birth after CS is a safe and cost-effective alternative that can reduce cesarean-related morbidity and ease the burden higher rates placed on the healthcare system. Despite these benefits, many women in Kenya still prefer repeat elective cesarean delivery in subsequent pregnancies. This study investigated the factors influencing this preference among low-risk women attending Kijabe Hospital. This qualitative phenomenological study involved 18 women with prior cesarean delivery attending the hospital. Participants were selected through purposive sampling based on predefined inclusion and exclusion criteria. Data was collected through in-depth interviews using a semi-structured interview guide and analyzed using inductive thematic analysis with the Dedoose software. Maternal reasons for preferring repeat CS included fear, personal preference versus the influence of loved ones, the convenience of simultaneous bilateral tubal ligation, and the desire to experience a vaginal birth. Prior birth experiences also shaped maternal choices of delivery modes. Traumatic vaginal interventions, an expressed low confidence in successful vaginal birth, and the considerations of risks over benefits were all influential. Participants also emphasized the importance of healthcare providers' recommendations, noting counseling gaps and facility preparedness to offer VBAC services. Ultimately, reducing repeat cesareans among low-risk women requires a comprehensive strategy: Strengthening the support for VBAC services, improving the quality of patient-provider communication, and addressing the emotional and psychological impacts of prior birth trauma. Institutional policies that encourage comprehensive counseling and shared decision-making are key to encouraging safer, evidence-based birth practices.

Keywords: Birth trauma, Mode of delivery, Repeat elective cesarean section, Vaginal birth after cesarean section, VBAC Counseling,



This open access article is published by MJ&M Biolabs, Kenya © 2024 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC- BY-NC-SA) license.

INTRODUCTION

Cesarean section (CS) is a lifesaving intervention in cases of obstetric complications like antepartum hemorrhage, fetal distress, and prolonged labor. It offers no additional benefits when performed without medical necessity (Betrán et al., 2016). Although relatively safe, CS carries significant risks such as bleeding, infection, visceral injury, newborn respiratory complications, and potential maternal or infant death. Complications relating to anesthesia like cardiac arrest and venous thromboembolism can also occur (Sandall et al., 2018). Complications such as adhesions, chronic pelvic pain, sexual dysfunction, and subfertility extend beyond pregnancy. Beyond the health risks, CS imposes a socio-economic burden, with costs up to twelve times higher than vaginal delivery (Binyaruka et al., 2021).

Despite the known health and financial implications, global rates continue to rise, with many countries exceeding the WHO's recommended threshold of 10-15% (Betran et al., 2021). Between 2010 and 2018, the global rate climbed to 21.1%, with significant increases in Eastern Asia (44.9%) and Northern Africa (31.5%) (Betran et al., 2021). Between 2014 and 2022 CS rates in Kenya surged from 5.3% to 12.3% in rural areas and from 14.7% to 23.8% in urban areas (KDHS, 2022). Institutional rates are alarming: Kijabe Hospital reports a CS rate of 60%. This rate is comparable to other tertiary institutions such as Kiambu Level 5 Hospital (37.8%), Tenwek Mission Hospital (47.75%), Naivasha Sub-County Referral Hospital (27.8%), Nakuru Provincial General Hospital (52.3%), and PCEA Chogoria Hospital (81.1%) (KHIS Tracker, 2023).

As CS rates continue to rise globally and locally, understanding the drivers of this trend is crucial to the formulation of targeted interventions to mitigate the health risks and financial implications. A sub-analysis of this trend in different obstetric populations defined by the Robson classification system indicates that repeat CS significantly contributes to overall CS rates (Van der Spek et al., 2020; Vogel et al., 2015). Despite evidence that non-medically indicated CS provides no added benefit for mothers or infants, many women today prefer CS even when vaginal birth is feasible (D'Souza et al., 2013). This trend is evident at Kijabe Hospital, where between January to December 2023, 21% of CS were performed on women with a previous CS, largely due to maternal preference for RECS without other medical indications.

While a previous CS is a well-established risk factor for repeat CS, several other medical and non-medical factors influence delivery mode choices ("ACOG Practice Bulletin No. 205," 2019). ACOG asserts that a prior CS, particularly with a low-transverse uterine incision, is not an automatic indication for repeat CS, and women without contraindications should be offered the option to attempt a VBAC. Women with a previous unplanned CS represent a special population in the sense that the conditions leading to their primary CS may be absent or modifiable for their current pregnancy. An example could be a primary CS due to fetal distress. For these women, VBAC is a viable and effective strategy that will help avert CSassociated morbidity and reduce the overall CS rates. However, research on this group is scarce particularly in LMICs such as Kenya, highlighting an obvious contextual knowledge gap. This study investigated the factors influencing the preference for RECS among lowrisk women with a prior unplanned CS attending Kijabe Hospital, the impact of previous birth experiences, and the role healthcare providers play in guiding decisions about delivery modes.

METHODS

Research Design

This qualitative study utilized a phenomenological design. This approach was deemed suitable for evaluating such a complex phenomenon, involving the interaction of past experiences, emotions, attitudes, and the dynamics of family, society, and the healthcare system (Cridland et al., 2015).

Study Location

The study was conducted at Kijabe Hospital, a tertiary teaching and referral facility in Kiambu County. Kijabe is the largest hospital in the county with a 363-bed capacity. and manages approximately 6000 pregnant women annually. It has a wide catchment area that includes both walk-in and referred patients from Kiambu

County as well as neighboring counties such as Nairobi, Nakuru, Kajiado, Machakos, Makueni, Narok, and Bomet. The setting provides an important context for understanding decisionmaking processes in a tertiary facility with a broad patient base.

Study Population

The study involved prenatal and postnatal women with a previous unplanned CS attending Kijabe Hospital. Low-risk pregnant women with a prior unplanned CS, and postnatal women who had undergone RECS or VBAC following an unplanned CS were included in the study. Women whose prior CS was planned, those whose prior CS was not conducted in Kijabe Hospital, those with medical or obstetric contraindications to VBAC, and those presenting in active labor or with illness requiring urgent intervention were excluded from the study.

Sampling

Participants were selected through purposive sampling (Creswell, 2014). This method was chosen to target individuals who met the inclusion criteria to explore the research topic efficiently. The aim was to conduct 15-30 indepth interviews (IDIs), following Guest et al. (2006), who found that meaningful themes can emerge from six interviews, with saturation typically reached by the 12th. In this study, thematic saturation was achieved by the 15th interview, with no new themes emerging. To confirm this, three additional interviews were conducted, verifying saturation.

Data Collection Tools

Data was collected through IDIs using novel semi-structured interview guides prepared in basic English and Swahili and informed by a review of previous research and theoretical literature. The guides included closed-ended questions to gather socio-demographic data and predominantly featured open-ended questions designed to prompt discussions aligned with the study's objectives. Before data collection, the guides were pre-tested with respondents at Kijabe Hospital's Naivasha satellite clinic to assess their clarity, appropriateness, and reliability in eliciting the desired responses.

Data Collection Procedures

The IDIs were scheduled during participants'

antenatal or post-natal care visits and were conducted face-to-face in a private room at the MCH unit. Discussions, guided by a novel semi-structured interview guide were held in either English or Kiswahili and lasted about 20 minutes. Participants provided a written consent process after a thorough explanation of the study emphasizing the ethical principles of autonomy, confidentiality, and voluntary participation. With the participants' consent, the interviews were audio recorded and recordings were stored in a password-protected folder to maintain confidentiality.

Data Management and Analysis

Audio recordings were transcribed verbatim, and Swahili recordings were translated into English. The recordings were anonymized by assigning random pseudonyms. The transcripts were kept in a password-protected device. Using Braun and Clarke's (2006) six-step approach, the research assistant and the lead researcher independently conducted open coding and then synthesized the codes into a unified codebook. This axial coding process led to the identification of key themes and subthemes. Relevant literature was reviewed to contextualize these themes within existing research. Dedoose 9 software was used for the systematic analysis of the rest of the transcripts. Representative quotes were highlighted to preserve the integrity of participants' words and provide clear examples of their perspectives. An independent expert reviewed the transcripts, confirming the accuracy of the identified themes and subthemes. Emerging themes were compared with existing literature to assess consistency, identify any divergent themes, and assess data saturation

Ethical Considerations

Ethical approval was granted by Kijabe Hospital's Research and Ethics Committee (KH/ISERC/0025/2024) and NACOSTI (NACOSTI/P/24/36285). Participation was voluntary, with informed consent, and withdrawal was allowed without repercussions. Pseudonyms ensured anonymity, and transcripts were securely stored in a password-protected device. Counseling services were offered to participants who had not received sufficient guidance on delivery options.

RESULTS

General Information

Eighteen of the 20 women who consented to the study completed the interviews, yielding a 90% response rate. This was due to participants' interest, availability, and rapport during recruitment. Two participants withdrew for personal reasons, but thematic saturation was reached after 15 interviews, with three additional interviews confirming saturation. Most participants (n=15) attended ANC at Kijabe Hospital, while three preferred nearby facilities but chose Kijabe for delivery due to trust in care providers and VBAC availability. Despite emotional difficulty during discussions, comprehensive was still successfully collected.

Socio-demographic Characteristics of Study Participants

The participants' mean age was 32, all were married and all had NHIF, with half having additional private health insurance coverage. All participants were multiparous, with most interviewed during the prenatal stage, and three during postnatal visits. The majority had tertiary-level education, as did their spouses. Sixteen participants had a prior CS due to nonreassuring fetal status (NRFS) coupled with poor labor progress. Other reasons for previous CS included breech presentation, cord prolapse, and one case of macrosomia. A summary of these demographics is provided in Table 1.

Table 1: Socio-demographic Characteristics of Study Participants

Variable	Description	n =18	Percentage (%)
Age in years	27-30	7	39
	31-34	8	44
	>34	3	17
Residence	Urban	7	39
	Peri-urban	5	23
	Rural	6	33
Level of education	Primary	1	6
	Secondary	2	11
	Tertiary	15	83
Spouse level of Education	Primary	1	6
	Secondary	1	6
	Tertiary	16	89
Health insurance status	NHIF	9	50
	NHIF & Private Insurance	9	50
Monthly household income	Not sure	6	33
	< Kshs. 50,000	4	22
	50,000-100,000	6	33
	>100,000 Kshs.	2	11
Place of ANC attendance in	Kijabe Hospital	17	94
the previous pregnancy	Other facility	1	6
Place of majority ANC	Kijabe Hospital	15	83
attendance in the current pregnancy	Other facility	3	17

Factors Influencing Delivery Mode Preferences

Factors influencing the preference for RECS are presented in alignment with the study's objectives, revealing key themes and subthemes that reflect maternal considerations and the role played by healthcare providers in shaping delivery decisions. Representative quotes are highlighted. A summary of the thematic breakdown is shown in Table 2 below.

Objective	Themes
Maternal Reasons for Preferring	Fear
Repeat	Fear of pain
Cesarean Section (CS)	Fear of child safety
	Fear of uterine rapture
	Personal preference versus the influence of loved
	ones
	The convenience of simultaneous BTL
	Fulfillment
Impact of Prior Birth Experiences	Traumatic Vaginal Interventions
	Vaginal examinations
	Process of labor induction
	Prolonged labor process
	Low confidence in successful VBAC
	Risks over benefits
	Poor birth outcomes
	Delayed healing and incapacitation
	Impact of repeat CS on future fertility
Influence of Healthcare Providers	Impact of provider's recommendations
	Delivery options counseling
	Lack of counseling
	Adequacy of counseling
	Timing of counseling
	Facility Preparedness to offer VBAC services

Table 2: Thematic Breakdown of Factors Influencing Delivery Mode Preferences

Maternal Reasons for Preferring Repeat Elective Cesarean Section (RECS)

Four key themes reflecting a complex and multifaceted decision-making process emerged. They included (1) fear, (2) personal preference versus the influence of loved ones, (3) the convenience of simultaneous bilateral tubal ligation (BTL), and (4) fulfillment.

Fear

Fear was a central theme across many participants' stories encompassing the fear of physical pain, fear for the child's safety, and fear for their own safety, specifically fear of uterine rupture. Many women expressed a profound fear of labor pain which drove them to opt for RECS, as they considered CS pain predictable and manageable. One participant shared her sentiments,

I was in so much pain that I did not expect... that is what made me go back to this, to the CS." (M8).

Another participant questioned the limited availability of epidural services, suggesting

that access to epidural analgesia could alleviate labor pain, potentially encouraging women to consider VBAC. She said,

".... I heard there is like epidural. why is it not being introduced? So, that you can give somebody even the encouragement of (sic) I can try the scar." (R18)

Conversely, some participants considered post-CS pain more severe, yet despite this, still chose RECS due to concerns about the unpredictability of labor. One participant explained her rationale for this decision,

"... let me just go and get pain at once. CS pain, which is not a joke at all, and then I will heal rather than getting pain twice." (J10)

Ultimately, the fear of enduring the unknowns of labor and the potential risk of additional pain from an emergency CS outweighed these women's concerns about the post-operative challenges of a repeat cesarean.

Concerns for child safety during labor significantly influenced the choice of RECS. Women whose previous CS resolved a lifethreatening situation for their infants, such as NRFS, were particularly apprehensive about attempting VBAC. This fear outweighed any other considerations. One participant shared her concerns,

"... I think the baby will be safer. My main agenda is for the baby to be safe. For instance, if I get prolonged labor, then she has something like, like that cerebral palsy. I'll live regretting because there was another better option." (M8)

Concerns about child safety during labor were closely intertwined with fears for the participant's own well-being. Many women were particularly apprehensive about the possibility of uterine rupture, a known risk of VBAC. One woman expressed her concern stating,

".... Uh, for me basically the rupture.... I fear the rupture" (E5)

Although this complication is statistically rare, the fear of such a serious outcome was enough to discourage them from considering VBAC.

Personal preference versus the influence of loved ones

Many women's narratives revealed a delicate balance between personal preferences and the influence of their loved ones. While some framed their decision as deeply personal, others described the significant impact family, particularly spouses and mothers had on their choice. Spousal preference for RECS stemmed from the emotional trauma of the previous failed vaginal birth. One participant shared her husband's opinion:

".... He was not very keen to have labor again, because for him it was very traumatizing... He was traumatized the first time....". (J10)

Despite this external input, most women ultimately based their decisions on prior experience. For instance, one participant shared that her mother strongly encouraged her to attempt VBAC after witnessing her difficult recovery from her previous CS,

"My mom is for normal delivery. She has gone to the extent of looking for herbs so that I can drink so that at least I have that normal delivery to avoid CS. But I'm not sure..." (19)

Despite her mother's urging, the participant leaned toward a RECS because she doubted her ability to have a successful VBAC.

The convenience of simultaneous BTL

The option of simultaneous BTL during CS emerged as a key factor among women desiring permanent sterilization who valued the convenience of combining both procedures especially since it aligned with their family planning goals. Two women cited this as their primary reason for undergoing RECS. Another participant, having reached her desired family size, saw RECS as the perfect opportunity to undergo simultaneous BTL, avoiding the need for a separate procedure later. She explained:

"... the reason I want a CS is according to my age, I don't want another child. So, I want to be closed. That's why I want CS." (H7)

This practicality made CS an attractive option beyond recovery or surgical concerns.

Fulfillment

The desire to experience a vaginal birth weighed heavily on women's decisions. This paradoxical desire to experience vaginal birth despite opting for CS stemmed from the perceived emotional benefits, particularly the immediate bonding between mother and child following vaginal delivery. One participant regretted missing this moment but felt RECS was the best option because she doubted her ability to achieve a successful VBAC. She still held on to the idealized vision of the intimate connection that occurs right after vaginal birth.

"... One of the things that I would always find very exciting is when you deliver a mother, then you put the baby on their chest right there... I was looking forward to that scenario... very exciting." (J10)

Another participant, aware that successful VBAC was not certain, still felt strongly about it seeing it as her last chance to experience natural childbirth:

"... I'm aware, that I can try and still fail.... but I'm picking it at this level because once I have a second scar, I wouldn't have any time to do any VBAC. That's an opportunity that is closed. (R18)"

The potential risks of a VBAC were worthwhile to fulfill this desire.

Impact of Previous Birth Experiences on Delivery Method

As participants reflected on their previous deliveries, a range of emotional, physical, and psychological factors came to light, each impacting their decisions. Key themes included (1) traumatic vaginal interventions, (2) low confidence in successful VBAC, and (3) considerations of risks over benefits.

Traumatic Vaginal Interventions

Many participants shared distressing experiences centered around vaginal examinations, labor induction, and the physical and emotional toll of prolonged labor, all of which left lasting impressions on the women. Vaginal examinations were described as painful and traumatizing.

"... I had like 10 vaginal examinations and my down there was very sore... this nurse would come check... a medical intern comes... then a consultant... it reached a point, I became like if you tell me we check I just start crying.... It was traumatizing. (B2)

RECS appealed to many women as it offered a way to avoid reliving these distressful experiences.

The use of the Foley catheter for labor induction was another distressful aspect. One participant vividly recalled her experience:

"I came at 42 weeks. They said, um, they have to induce me... they started with something. They were calling mechanicals, I don't know mechanical something. They were hot balloons, they were putting hot balloons. They were opening you like a vehicle...imagine all that pain, Never again. (A1)

The fear of enduring such pain again deterred many women from Virginal birth.

Some participants' negative birth experiences were compounded by a prolonged labor process which they described as never-ending and exhausting. Reflecting on her experience, one participant stated:

"...I was traumatized. I labored the whole night morning up to around 12 pm.... for me it was traumatizing. I labored for over 18 hours, of which I think it was so long It was torturous." (B2) The sheer thought of enduring long hours of labor left many women hesitant to try a vaginal birth again.

Low confidence in successful VBAC

Another recurring theme was the strong sense of uncertainty about achieving a successful VBAC and the perception of the failed vaginal birth as a "waste of effort." After experiencing an unplanned CS, many women doubted their ability to deliver vaginally, making them lean toward RECS. One participant shared her concerns:

"...chances are that you know, I'm still me. Nothing has changed. So if I was not opening up then, what is it going to make me open up now?" (A1)

Most respondents viewed the emotional and physical toll of enduring labor to ultimately end up with a CS as a "waste of effort." Some even referred to it as "double pain" referring to the suffering from both labor and the subsequent CS. One participant expressed this sentiment stating:

".... if by then, if I would have gotten through vaginal birth, it could be worth the pain, you know? It was just torture for nothing.... I wish I would have gone there direct (sic)... it was double pain. (A1)

This perception made RECS more appealing as it seemed predictable and controlled sparing women the uncertainty and exhaustion they linked to a VBAC attempt.

Risks over benefits

A few women's delivery choices were influenced by the complications they experienced with their initial CS. Concerns about poor birth outcomes, delayed healing, incapacitation, and the impact of repeat CS on future fertility emerged as critical factors guiding the preferences for either RECS or VBAC.

For five participants, the trauma of their previous experience was tied to poor birth outcomes, as their infants suffered birth asphyxia. This fueled an overwhelming fear of attempting VBAC. One participant, whose second child developed cerebral palsy after suffering asphyxia due to prolonged labor, faced a similar situation in her third pregnancy, resulting in an emergency CS. This experience made her hesitant to attempt a VBAC, fearing another ordeal. "My second born, I gave birth normal, and they got a problem, I had prolonged labor.... Even now they have a problem, they are special.... I don't want to be given normal because of that case because I am afraid for this child to have problems." (H8)

Some women described a difficult recovery process complicated by infection of the CS wound. These experiences left them wary of undergoing another CS fearing similar or worse challenges. One participant recounted her frustration:

"... I'll still prefer normal delivery. Because even for my recovery in the CS, the feeling was not okay... The wound itself took time to heal and every time I was, I used to come here to be checked...Even at three months, I was not stable." (R18)

Interestingly, despite experiencing complications, two women still opted for RECS. The unpredictability of labor and the possibility of induction posed a greater concern for them than the known challenges of recovering from a CS. In contrast, some women, recounting their struggles with resuming daily activities, including self-care and caring for their newborn preferred VBAC, hoping for a quicker recovery and the independence to care for themselves and their babies. One participant articulated this sentiment:

"... you're not able even to wash your baby, even just simple breastfeeding you have to be held. Just getting out of bed. You are supported. It's tough." (17)

While some participants sought to regain their independence through vaginal delivery, the perceived control and predictability of a RECS by others outweighed their fear of a vaginal birth highlighting the nuanced nature of the decision-making process.

All the participants recognized the cumulative effect of multiple CS in limiting future family size, this weighed heavily on their decisions. As scar tissue builds up with each CS, so does the risk of complications in future pregnancies, such as uterine rupture, placenta accreta, and surgical difficulties which can predispose to visceral injury. This heightened risk is behind the recommendation to limit the number of CS. One participant, aware of these potential risks, expressed her strong desire to preserve

her reproductive options, stating,

"I don't want to experience a limitation in the children I would want to get because of previous CSs..." (D4).

In contrast, despite acknowledging the impact of multiple CS on future fertility, some women still opted for RECS driven by fear of labor pain and safety concerns. This divergence in choices underscores the multifaceted nature of the decision-making processes. While the potential limitation on family size was a consideration for many, it was not always the determining factor in their choices.

Influence of Healthcare Providers and Health Systems

This objective sought to explore how healthcare providers influenced women's delivery decisions drawing solely from the participants' recollections discussions of their with providers. Key themes included (1) providers' recommendations, (2) gaps in counseling, and (3) facility's preparedness to offer VBAC services. The findings highlight the significant role providers play in the decision-making process.

Impact of provider's recommendations

Many participants expressed deep trust in their providers, often aligning their choices with the guidance given during ANC. One participant, for example, emphasized her reliance on her doctor's advice, stating,

"...the doctors who will be seeing me. Whatever they'll advise me, that is what I'm going to do because you are experts in this field..." (19)

Conversely, a participant revealed that her inclination towards RECS stemmed from the negative recommendations she received from providers, specifically the nurses:

"...I have many opinions from nurses who are (sic) with me in my previous experience.... They are like, E5, I hope you're not coming back here to labor... Come get a CS and go." (E5)

The nurses' doubts about her ability to have a successful VBAC led her to choose RECS underscoring the importance of clear, evidence-based communication and support from healthcare professionals.

Delivery options counseling

Participants reported varied counseling

experiences with more than half reporting having received no counseling on their delivery options, particularly regarding the possibility of VBAC. This lack of information led to an automatic preference for RECS, as they were unaware of VBAC as an option. One participant narrated her encounter with her provider stating,

"...It was, like this.... will you have a VBAC? I said No. Then he said, okay, It was as simple as that. Like I didn't hear a no, you should try vaginal birth because it has one to three advantages. Or No, don't try VBAC because you'll have no risk of this. No. That did not happen." (B2)

The lack of discussion on VBAC made some women assume that repeat CS was their only option. For instance, one respondent, well into her third trimester, expressed her uncertainty about her delivery options, saying:

"... I don't know. The option I know is that I'll go back to the CS because I hear when you start with the knife, it's there you will go back." (C3)

This theme was particularly prominent among participants who were healthcare themselves. They reported having received no counseling on their delivery options during their ANC. They believed their providers assumed they were already knowledgeable but in reality, they were unaware of the details of their delivery options. One participant shared:

"... especially for us. I'll speak in the place of the staff and me as a medical practitioner. When we step in the shoes of going to a clinic... sometimes the info is being held because somebody assumes you know it. They assume we know it, or somebody will give you shallow information.... that one is one thing that needs to be changed...I don't work in Mat so I don't know" (R18)

Participants who received comprehensive information on both delivery modes expressed greater confidence in their decisions. For instance, one participant narrated the contrast between her first and second pregnancy saying,

"... the first time we never had a chance to discuss about cesarean with any medical practitioner. But the second time at least I knew things. And even I had a chance to ask questions. And the doctor was really nice. He gave me good answers. So, even if you are compromising, you feel you're making a decision from a sober point..." (N14)

Dissatisfied with the information provided, some women resorted to independent research using Google to fill knowledge gaps about their delivery options. For instance, one participant who reported receiving no formal counseling but was aware of the risk of uterine rupture explained:

"I've made research on my own. I've Googled." (B2)

These findings emphasize the value of detailed counseling, which empowers women to make informed decisions with greater clarity and confidence. In contrast, insufficient guidance can drive women to seek information independently, which may not be accurate or comprehensive.

The timing of counseling also emerged as a key factor with participants suggesting that counseling should begin early, ideally at the initial ANC visit, and continue throughout the pregnancy to allow sufficient time to reflect on their options and engage in meaningful discussions with their healthcare providers. Continuous counseling was viewed as essential in helping to reassure women and alleviate anxiety as they approached their delivery. One participant shared her sentiments:

"... information from the word go.... once a woman comes for the first antenatal clinic. It's important to prepare her psychologically. For the whole period. Not like you're coming for the last clinic and then that's when you're discussing most of these things..." (N27)

This insight underscores the importance of consistent, timely, and comprehensive counseling in supporting informed decisions among women with prior unplanned CS.

Facility Preparedness to offer VBAC services

The availability of VBAC services at healthcare facilities was another key factor, particularly among women attending ANC outside Kijabe Hospital. They bypassed their local facilities to travel great distances to access VBAC services. One participant, traveled nearly 400 kilometers to Kijabe to access the service. "I realized that here they allow VBAC like there are other hospitals that don't allow VBAC. Like where I was going, um, for clinic (sic) they didn't.... They were saying even if you come in labor, we will still do a CS on you." (D4)

This example underscores how limited access to VBAC services restricts women's options, pushing them towards RECS even when they might prefer vaginal birth. Access to VBAC services is vital in ensuring women have the autonomy to pursue their desired delivery method.

DISCUSSION

This study explored key factors influencing the preference for RECS under three main objectives: maternal reasons for preferring RECS, the impact of previous birth experiences, and the influence of healthcare providers. Fear of labor pain emerged as a dominant reason for choosing RECS, with many participants citing labor pain as a significant deterrent to attempting VBAC. This is consistent with findings from Jenabi et al. (2020), where women favored CS to avoid labor pain. Despite acknowledging that CS recovery pain was often severe and prolonged, many women in my study still opted for RECS, prioritizing their safety and that of their infants over the fear of surgery-related pain. These women perceived CS pain as predictable pain medication. manageable and with Interestingly, a Nigerian study by Olofynbiyi et al. (2015) found that most women initially preferred VBAC because they perceived CS as more painful. However, nearly 70% eventually chose RECS due to safety concerns, a sentiment echoed by participants in my study. Although the risk of uterine rupture is low, between 0.2% to 1.5% for women with a single low transverse incision (ACOG Practice Bulletin No. 205, 2019) this fear strongly influenced many women's preference for RECS. These findings highlight the importance of comprehensive counseling that provides clear information on the risks and benefits of both delivery methods while addressing women's concerns about pain and safety. Counseling should also emphasize the availability of pain management options such as epidural anesthesia to encourage VBAC.

One approach that aligns with these goals is the Centering Pregnancy model, which combines traditional healthcare with group support. In this model, women meet with providers and peers to discuss pregnancy, childbirth, and parenting in a supportive environment. Liu et al. (2017) found that this group-based care approach improved women's birth experiences, helping them feel more empowered through education and shared experiences. Integrating elements of this model into prenatal care could offer women the knowledge and emotional support necessary to make more informed decisions. While Kenya may not be ready to reimburse providers for group consultations, low-cost or no-cost support groups led by trained healthcare professionals can be established within hospitals, churches, or community centers to support and help women feel confident in their delivery choices.

The tension between individual preferences and the strong influence of loved ones, particularly spouses, parents, and social networks was evident. Despite this, most women in my study ultimately made independent choices based on previous experiences, their perceptions of potential complications, and external factors like provider recommendations, and healthcare access. Similarly, a study conducted in Ethiopia found that women faced familial with spouses and in-laws having an upper hand in decisions regarding delivery (Zewude et al., 2022). This contrast in the extent to which women exhibited autonomy highlights potential cultural differences and underscores the importance of culturally sensitive counseling that encourages informed consent while respecting family providing dynamics. Bv comprehensive counseling and validating women's experiences, healthcare providers can help women and their families make decisions that align with their values.

The convenience of undergoing simultaneous BTLduringCSwasakeyconsideration, especially for women with large families who expressed a preference for this combined approach to eliminate the need for another procedure. This finding appears to be underexplored as I did not find comparative studies addressing it. My findings highlight how logistical convenience and cost-saving efforts can shape decisions. Providers must acknowledge convenience as a valid consideration especially where financial constraints or surgical risks are a concern. Discussing the option of simultaneous BTL within the framework of informed consent can enhance patient satisfaction and support family planning goals. Providers must consider the implications of sterilization, ensuring that women do not feel coerced into choosing RECS purely for convenience without fully exploring other family planning options.

Personal fulfillment through vaginal delivery is a key theme in many African studies. A systematic review across rural Africa, including Kenya, Uganda, Ethiopia, Sudan, and Nigeria found that many women valued vaginal birth for its cultural significance as a marker of resilience and validation of womanhood (Fantaye et al., 2019). Similarly, a study in Uganda highlighted vaginal birth as a symbol of strength, perseverance, and maternal achievement (Namujju et al., 2018). These sentiments were echoed in my study with many women expressing a deep longing to experience vaginal birth probably reflecting broader cultural values that tie childbirth to notions of fulfillment and validation. However, despite these deep-rooted desires, most women ultimately opted for RECS driven by concerns for child safety, past trauma, and doubts about successful VBAC. This illustrates the complex interplay between emotional or cultural desires and the practical realities of medical risks and past experiences all of which have to be considered to ensure women feel fulfilled and empowered in their choices.

Prior traumatic experiences such as distressing inductions, painful vaginal exams, and prolonged labor resulted in women preferring RECS to avoid reliving the physical and emotional toll of their previous birth. This is consistent with findings by Jenabi et al., (2020) and Tully et al., (2019)we found women's accounts of their experiences largely portrayed cesarean section as everything that they had wanted to avoid, but necessary given their situations. Contrary to popular suggestion, the data did not indicate impersonalized medical practice, or that cesareans were being performed 'on request.' The categorization of cesareans into 'emergency' and 'elective' did not reflect maternal experiences. Rather, many unscheduled cesareans were conducted without indications of fetal distress and most scheduled cesareans were not booked because of 'choice.' The authoritative knowledge that influenced maternal perceptions of the need to undergo

operative delivery included moving forward from 'prolonged' labor and scheduling cesarean as a prophylactic to avoid anticipated psychological or physical harm. In spontaneously defending themselves against stigma from the 'too posh to push' label that is currently common in the media, women portrayed debate on the appropriateness of cesarean childbirth as a social critique instead of a health issue. The findings suggest the 'need' for some cesareans is due to misrecognition of indications by all involved. The factors underlying many cesareans may actually be modifiable, but informed choice and healthful outcomes are impeded by lack of awareness regarding the benefits of labor on the fetal transition to extrauterine life, the maternal desire for predictability in their parturition and recovery experiences, and possibly lack of sufficient experience for providers in a variety of vaginal delivery scenarios (non-progressive labor, breech presentation, and/or after previous cesarean, who noted that women with negative birth experiences often choose CS to avoid the unpredictability of VBAC. Interestingly, while these studies identified broader patterns of fear around unpredictable labor, my study provides a more detailed perspective on specific and potentially modifiable birth-related traumas like vaginal exams that leave lasting impressions. Acknowledging that these distressing experiences are not fixed outcomes underscores the importance of trauma-informed maternity care an approach that prioritizes safety, trust, autonomy, collaboration, and empowerment address women's psychological needs to (Seng & Taylor 2015). Interventions like better pain management, gentler exams, and better communication can help reduce these traumatic experiences. The consistency of these findings across studies highlights the value of personalized, compassionate counseling that acknowledges each woman's unique fears and past experiences when discussing future delivery options.

Uncertainty surrounding the success of VBAC was a key factor in many women's decisions. Fear of undergoing labor only to end in another CS led many to opt for RECS. Similar findings were reported by Tully et al., (2019), where women who endured lengthy labor chose RECS to avoid a repeat ordeal. While Tully's work emphasized emotional and physical exhaustion, my findings revealed a deeper sense of personal

failure suggesting a potential cultural influence. There is evidence of cultural attitudes shaping women's decisions. For instance, in Tanzania, Penn-Kekana et al. (2007) found that vaginal birth was viewed as the ideal, and CS as a solution for "failure". Ohaja & Anyim (2021), noted similar attitudes across African contexts with emphasis placed on vaginal delivery. For many African women, successful VBAC appears to offer emotional and cultural validation, allowing them to reclaim control over their childbirth experiences. Given the emotional, physical, and cultural weight of these experiences, healthcare providers must approach counseling with sensitivity and emphasize shared decision-Compassionate making. counseling that addresses past trauma, and provides clear, evidence-based guidance on the risks and benefits of VBAC, can empower women to make informed choices and alleviate feelings of inadequacy.

Closely tied to prior trauma was the perception of risks over benefits. Many women viewed CS as a safer option especially if their previous birth was marked by a life-threatening complication such as fetal asphyxia. For these women, RECS offered a predictable and controlled environment that mitigated the perceived risks of VBAC. This mirrors findings in South Africa where women with a prior history of NRFS preferred RECS to safeguard their children's health (Tully et al., 2019). However, it is important to recognize that CS is not inherently safer and carries risks for both the mother and infant (Sandall et al., 2018). The conditions leading to NRFS in the prior pregnancy may also not repeat and with appropriate medical oversight, women can safely attempt VBAC which provides similar safety outcomes without the surgical risks ("ACOG Practice Bulletin No. 205," 2019). My findings expand on the findings of Tully and colleagues by highlighting a broader range of safety concerns that include post-CS recovery. Women who experienced complications such as delayed wound healing, infection, or prolonged physical incapacitation, were more inclined to attempt VBAC, reflecting findings by Moffat (2018) where women viewed VBAC recovery as less taxing. These findings emphasize the complexity of the decision-making process as women must consider fetal safety while avoiding personal harm. Healthcare providers should address both maternal and infant risks

when counseling women fostering a care environment where women feel empowered to choose the safest delivery option based on their unique circumstances.

This study also revealed a subtle yet complex relationship between future fertility concerns and delivery mode choices among women with prior CS. While some participants opted for VBAC to preserve their reproductive options, others opted for RECS motivated by fears of labor pain and safety concerns. This divergence highlights the multifaceted nature of the decision-making process, where family size is just one of several factors at play. While I did not find African studies to support these findings, a recent study in Iran found that women had similar concerns (Khalajinia & Alipour, 2024). In many African communities, where large families are valued, preserving fertility may take precedence over immediate health concerns. These perspectives emphasize the importance of personalized counseling that addresses cultural, economic, and social contexts.

On the influence of healthcare providers and the healthcare system, key themes included a lack of comprehensive counseling, provider recommendations, and facility preparedness for VBAC. Many women reported insufficient or poorly timed counseling that left them illequipped to make informed decisions. Some turned to unreliable online sources like Google underscoring the need for comprehensive and accessible counseling from providers. Inadequate counseling led to misinformation pushing women towards RECS even when they were suitable candidates for VBAC. Providers' recommendations were also key with many women reporting trust in their doctor's recommendations because they perceived them as experts. This finding echo those of Biraboneye (2020), where participants opted for RECS simply because doctors recommended it. This Kenyan study highlighted gaps in patient education: Only 8.3% of women were aware of the surgical and anesthetic risks of CS, and about half were unaware of the 60% - 80% VBAC success rate after a single CS. Developed by Grobman et al. (2007), the VBAC score model assesses the likelihood of VBAC success by considering factors such as maternal age, BMI, prior vaginal delivery, indication for the previous CS, and current pregnancy details like gestational age and fetal size. Providers can use this predictive tool to offer personalized risk assessments that will empower women to make informed decisions. Moreover, my study found that counseling issues extend beyond content to timing. Many women reported delayed or sporadic counseling, that denied them adequate time to reflect on their options. Thus, these findings stress the importance of comprehensive, continuous, and well-timed counseling throughout pregnancy.

The unavailability of VBAC services in some facilities limited women's consideration of VBAC as a viable option. This lack of access forced women into choosing RECS, not out of preference, but due to systemic limitations. Similarly, Wanyonyi et al. (2010) found that East African obstetricians were hesitant to recommend VBAC due to insufficient trained personnel and monitoring equipment, raising concerns about maternal and fetal outcomes. My study also highlights how women actively sought these services despite systemic barriers, an underexplored aspect in provider-centered studies. These findings underscore the need for healthcare systems to invest in infrastructure and human resources to support VBAC services to improve health outcomes while enhancing women's reproductive autonomy.

While the primary aim of this study was to explore factors influencing delivery preferences, an additional observation was made regarding the use of VBAC scoring. Four women were assessed using the institution's VBAC scoring system: three with high scores above 90% achieved VBAC while the fourth with a score below 50% and did not have a successful VBAC mainly due to the need for labor induction, which deducts 10 points from the overall score. Not all participants could be scored as vaginal examination, a key element of the VBAC scoring system was not always indicated. This finding emphasizes the practical value of predictive tools in guiding delivery decisions. Routine use of such tools in clinical practice could help identify strong VBAC candidates and potentially reduce unnecessary CS. Moreover, this finding underscores the importance of personalized, evidence-based counseling to support informed decisions among women with a previous CS.

This study had a few limitations. Homogeneity in the sociodemographic characteristics (SDC) of participants limited my ability to assess the potential impact of these variables on delivery preferences. Existing literature shows that these factors contribute to the disparities in CS rates between high and LMICs, and between urban and rural populations (Boerma et al., 2018). In Kenya, Odongo, (2020) found that urbandwelling women, women with higher income, and those with health insurance were more likely to demand for CS even when vaginal birth is possible. Nevertheless, this lack of variability in the SDC might reflect broader societal changes and evolving population dynamics. For instance, increased healthcare coverage through NHIF has improved access to essential medical services, including childbirth options in Kenya. However, my findings implore us to look beyond financial barriers as even with insurance coverage, women may still experience trauma or a lack of comprehensive counseling affecting their choices. Future research should involve a diverse participant pool to better capture how these variables affect delivery choices. Insights from such research will inform interventions tailored to the needs of various populations.

Additionally, the qualitative nature of this study poses the potential for recall bias. To mitigate the extent of this, postnatal women were interviewed soon after delivery, capturing their narratives while the details were still fresh. Many of the included pregnant women had also undergone their previous CS within the last three years further enhancing the likelihood of reliable recall. The subjective nature of qualitative research may also have introduced researcher biases in the interpretation of data (Holloway & Galvin, 2016). To minimize this, I engaged in peer debriefing with my assistant discussing findings and interpretations, ensuring multiple perspectives to enhance the credibility of the analysis.

CONCLUSIONS

In summary, this study highlights the complex interplay of personal reasons, past experiences, and healthcare-related factors influencing lowrisk women's preferences for RECS after a prior unplanned CS. Personal factors include fear, personal preference versus the influence of loved ones, the convenience of simultaneous BTL,

and fulfillment. Key experiential factors include traumatic vaginal interventions, low confidence in successful VBAC, and considerations of risks over the benefits of vaginal birth. The influence of healthcare providers and systems exemplified by insufficient counseling and limited availability of VBAC services, reveals critical gaps contributing to rising CS rates. This interwoven complexity suggests that the solutions are equally multifaceted. Healthcare providers must therefore approach discussions about delivery options with sensitivity. acknowledging the emotional weight of past experiences, and the influence of external factors all of which impact women's decisions. These steps are essential to support women in making well-informed decisions that align with their preferences and health needs.

RECOMMENDATIONS

i. Hospitals should implement policies that ensure comprehensive, individualized traumasensitive care plans for all pregnant women. This should include guidelines to reduce the frequency of vaginal exams and adopt gentler, trauma-sensitive practices such as explaining procedures to minimize discomfort.

ii. The Ministry of Health (MOH) should prioritize the expansion of VBAC services by subsidizing costs relating to epidural anesthesia, addressing staff shortages, and allocating resources to improve infrastructure and train personnel to offer these services safely.

iii. Future research should investigate healthcare providers' perspectives on counseling and delivery options following an unplanned CS, exploring their training, biases, and knowledge gaps.

CONFLICT OF INTEREST

All authors declare no conflict of interest

ACKNOWLEDGMENTS

My deepest gratitude goes to God for granting me the grace and wisdom to complete this work. I am also deeply thankful to my family for their unwavering support and encouragement throughout the research process. Finally, special credit to the participants, whose willingness to share their experiences made this research possible.

FUNDING

There was no external funding for this research.

REFERENCES

- American College of Obstetrics and Gynecology Practice Bulletin No. 205: Vaginal Birth After Cesarean Delivery. (2019). *Obstetrics & Gynecology*, 133(2), e110-e127. <u>https://doi.org/10.1097/</u> <u>AOG.0000000000003078</u>
- Betran, A. P., Ye, J., Moller, A.-B., Souza, J. P., & Zhang, J. (2021). Trends and projections of cesarean section rates: Global and regional estimates. *BMJ Global Health*, 6(6), e005671. <u>https://doi.org/10.1136/ bmjgh- 2021-005671</u>
- Betrán, A. P., Ye, J., Moller, A.-B., Zhang, J., Gülmezoglu, A. M., & Torloni, M. R. (2016). The Increasing Trend in Caesarean Section Rates: Global, Regional and National Estimates: 1990-2014. *PloS One, 11*(2), e0148343. <u>https://doi.org/10.1371/journal.pone.0148343</u>
- Binyaruka, P., & Mori, A. T. (2021). Economic consequences of caesarean section delivery: Evidence from a household survey in Tanzania. *BMC Health Services Research*, 21(1), 1367. <u>https://doi.org/10.1186/s12913-021-07386-0</u>
- Biraboneye S, P., Ogutu, O., van Roosmalen, J., Wanjala, S., Lubano, K., & Kinuthia, J. (2017). Trial of labor or elective repeat caesarean delivery: are women making an informed decision at Kenyatta national hospital? *BMC Pregnancy and Childbirth*, 17(1), 260. <u>https://doi.org/10.1186/s12884-017-1440-3</u>
- Boerma, T., Ronsmans, C., Melesse, D. Y., Barros, A. J. D., Barros, F. C., Juan, L., Moller, A.-B., Say, L., Hosseinpoor, A. R., Yi, M., de Lyra Rabello Neto, D., & Temmerman, M. (2018). Global epidemiology of use of and disparities in caesarean sections. *Lancet (London, England), 392*(10155), 1341–1348. <u>https://doi.org/10.1016/S0140-6736(18)31928-7</u>
- Centering Healthcare Institute. (n.d.). *CenteringPregnancy*. Retrieved from

https://centeringhealthcare.org/what-we-do/ centering-pregnancy

- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches /.* SAGE Publications, <u>https://eduq.info/xmlui/handle/11515/19498</u>
- Cridland, E. K., Jones, S. C., Caputi, P., & Magee, C. A. (2015). Qualitative research with families living with autism spectrum disorder: Recommendations for conducting semi-structured interviews. *Journal of Intellectual and Developmental Disability*, 40(1), 78–91. <u>https://doi.org/10.3</u> <u>109/13668250.2014.964191</u>
- D'Souza, R., & Arulkumaran, S. (2013). To "C" or not to "C"? Caesarean delivery upon maternal request: a review of facts, figures, and guidelines. *Journal of Perinatal Medicine*, 41(1), 5–15. <u>https://doi.org/10.1515/jpm-2012-0049</u>
- Fantaye, A. W., Gunawardena, N., & Yaya, S. (2019). Preferences for formal and traditional sources of childbirth and postnatal care among women in rural Africa: A systematic review. PLoS ONE, 14(9), e0222110. <u>https://doi.org/10.1371/journal.pone.0222110</u>
- Guest, G., Bunce, A., & Johnson, L. (2006). How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability. *Field Methods*, *18*(1), 59–82. <u>https://doi.org/10.1177/1525822X05279903</u>
- Jenabi, E., Khazaei, S., Bashirian, S., Aghababaei, S., & Matinnia, N. (2020). Reasons for elective cesarean section on maternal request: A systematic review. *The Journal of Maternal-Fetal & Neonatal Medicine*, 33(22), 3867–3872. <u>https://doi.org/10.1080/14767058.2019.1587407</u>
- Kenya Medical Research Institute, & National Council for Population and Development/ Kenya. (2015). *Kenya Demographic and Health Survey 2014*. <u>https://dhsprogram.</u> <u>com/pubs/pdf/FR308/FR308.pdf</u>
- Khalajinia, Z., & Alipour, Z. (2024). Identifies current trends in vaginal birth after cesarean section in Iran: A qualitative study. *Iranian Journal of Nursing and*

Midwifery Research, 29(3), 330-336. <u>https://doi.org/10.4103/ijnmr.ijnmr_359_22</u>

- KHIS Tracker. (n.d.). <u>https://histracker.health.</u> <u>go.ke/dhis-web-</u><u>commons/security/login.</u> <u>action</u>
- Liu, R., Chao, M. T., Jostad-Laswell, A., & Duncan, L. G. (2017). Does Centering Pregnancy Group Prenatal Care Affect the Birth Experience of Underserved Women? A Mixed Methods Analysis. *Journal of immigrant and minority health*, 19(2), 415–422. <u>https://doi.org/10.1007/s10903-016-0371-9</u>
- Moffat, M. A., Bell, J. S., Porter, M. A., Lawton, S., Hundley, V., Danielian, P., & Bhattacharya, S. (2007). Decision making about mode of delivery among pregnant women who have previously had a caesarean section: a qualitative study. *BJOG: An International Journal of Obstetrics & Gynaecology*, 114(1), 86-93. <u>https://doi.org/</u> 10.1111/j.1471-0528.2006.01154
- Namujju, J., Muhindo, R., Mselle, L. T., & Kohi, T. W. (2018). Childbirth experiences and their derived meaning: A qualitative study among postnatal mothers in Mbale Regional Referral Hospital, Uganda. Reproductive Health, 15(1), 183. <u>https://</u> <u>doi.org/10.1186/s12978-018-0628-y</u>
- Odongo, A. A. (2020). Determinants of Choice of Cesarean Section Among Women of Childbearing Age in Kenya [Thesis, University of Nairobi]. <u>http://erepository.uonbi.ac.ke/ handle/11295/153656</u>
- O'Donovan, C., & O'Donovan, J. (2018). Why do women request an elective cesarean delivery for non-medical reasons? A systematic review of the qualitative literature. *Birth (Berkeley, Calif.)*, 45(2), 109–119. <u>https://doi.org/10.1111/birt.12319</u>
- Ohaja, M., & Anyim, C. (2021). Rituals and embodied cultural practices at the beginning of life: African perspectives. *Religions,* 12(11), 1024. <u>https://doi.org/10.3390/rel12111024</u>
- Olofinbiyi, B. A., Olofinbiyi, R. O., Aduloju, O. P., Atiba, B. P., Olaogun, O. D., & Ogundare, O. R. (2015). Maternal views and experiences

regarding repeat Caesarean section. Nigerian journal of clinical practice, 18(4), 489-492. <u>https://www.ajol.info/index.php/</u> <u>njcp/article/view/117729</u>

- Panda, S., Begley, C., & Daly, D. (2018). Clinicians' views of factors influencing decision-making for caesarean section: A systematic review and meta-synthesis of qualitative, quantitative and mixed methods studies. *PloS One*, 13(7), e0200941. <u>https://doi.org/10.1371/journal. pone.0200941</u>
- Robson, M. S. (2001). Classification of caesarean sections. Fetal and Maternal Medicine Review, 12(1), 23–39. <u>https://doi.org/10.1017/S0965539501000122</u>
- Sandall, J., Tribe, R. M., Avery, L., Mola, G., Visser, G. H., Homer, C. S., Gibbons, D., Kelly, N. M., Kennedy, H. P., Kidanto, H., Taylor, P., & Temmerman, M. (2018). Short-term and long-term effects of caesarean section on the health of women and children. *Lancet (London, England), 392*(10155), 1349–1357. <u>https://doi.org/10.1016/S0140-6736(18)31930-5</u>
- Seng, J., & Taylor, J. (2015). Trauma-informed care in the perinatal period. Liverpool University Press. <u>https://link.springer.com/</u> <u>chapter/10.1007/978-3-030-04342-1_8</u>

- Tully, K. P., et al. (2019). Women's perspectives on repeat cesarean delivery versus trial of labor after cesarean. *Journal of Maternal-Fetal & Neonatal Medicine*, 32(22), 3745-3752. https://doi.org/10.1080/14767058.2018.148 3156
- Van der Spek, L., Sanglier, S., Mabeya, H. M., van den Akker, T., Mertens, P. L. J. M., & Houweling, T. A. J. (2020). Socioeconomic differences in caesarean section - are they explained by medical need? An analysis of patient record data of a large Kenyan hospital. *International*

Journal for Equity in Health, 19(1), 117. https://doi.org/10.1186/s12939-020-01215-2

- Wanyonyi, S. Z., Mukaindo, A. M., & Stones, W. (2010). Perspectives on the practice of vaginal birth after caesarean section in East Africa. *East African Medical Journal*, 87(8), 335–339.
- Zewude, B., Siraw, G., & Adem, Y. (2022). The Preferences of Modes of Child Delivery and Associated Factors Among Pregnant Women in Southern Ethiopia. Pragmatic and observational research, 13, 59–73. <u>https://doi.org/10.2147/POR.S370513</u>

