HEALTHCARE PROVIDERS' PERSPECTIVES ON VAGINAL BIRTH AFTER CAESAREAN SECTION AT MWANANYAMALA HOSPITAL IN DAR ES SALAAM, TANZANIA

Salome O. Mlabwa (BSc.N)

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By

Salome O. Mlabwa

A Dissertation Submitted in (Partial) Fulfilment of the Requirements for the Degree of Master of Science in Midwifery and Women's Health

Muhimbili University of Health and Allied Sciences

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CERTIFICATION

This undersigned certifies that they have read and hereby recommend for acceptance by Muhimbili University of Health and Allied Sciences a titled ***"Healthcare Providers' perspectives on Vaginal Birth after Caesarean Section at Mwananyamala Hospital in Dar Es Salaam, Tanzania,"*** in (partial) fulfilment of the requirements for the award of the Degree of Master of Science in Midwifery and Women's Health of Muhimbili University of Health and Allied Sciences.

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Dr. Stella E. Mushy

(Supervisor)

_____

Date

_____

Mr. Ally A. Lyimo

(Co –supervisor)

_____

Date

DECLARATION AND COPYRIGHT

I, **Salome Osward Mlabwa**, declare that this dissertation is my original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

Signature …….Date…….

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DEDICATION

I dedicate this dissertation to my parents and my husband. Your unwavering love, encouragement, and belief in me have been the driving force behind my journey and accomplishments. Your constant support and sacrifices have shaped me into the person I am today. Your guidance, wisdom, and faith in my abilities have been a continual source of inspiration. Thank you for instilling in me the values of perseverance, hard work, and determination. This dissertation is a testament to your unwavering support and the opportunities you have provided me throughout my academic journey.

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ABSTRACT

Background: In Tanzania, the rate of cesarean section (CS) rose from 6% in 2016 to 11% in 2022 often due to repeated unnecessary CS that increases the risk of maternal and neonatal morbidity and mortality.Vaginal Birth after Cesarean (VBAC) offers a safer alternative and reduce the rate of unnecessary CS.

Aim: This study explored healthcare providers' perspectives on VBAC at Mwananyamala Hospital to identify barriers, facilitators, and recommendations made by HCPs to improve VBAC practices.

Methods and materials: The research used a descriptive qualitative study design with purposive sampling of 15 healthcare providers at Mwananyamala Hospital, Dar es Salaam, Tanzania. In-depth, semi-structured interviews were conducted, recorded, and transcribed to capture perspectives on VBAC. Thematic analysis was applied to the data, involving coding and identification of emerging patterns. Ethical considerations included informed consent, confidentiality, and adherence to ethical guidelines for research involving human subjects.

Results: The data revealed four main themes, each with several subthemes. Participants demonstrated an understanding of VBAC, including its meaning, criteria, benefits, and complications. Facilitators included individual and facility-related facilitators. Participants highlighted Individual, interpersonal, facility and patient-related barriers to implement VBAC. Recommendations emphasized the need for guidelines and SOPs promoting VBAC, on-the-job training, enhanced staffing and motivation, comprehensive education for mothers and the community, and improved interdisciplinary teamwork for VBAC management.

Conclusion and recommendations: HCPs showed understanding of VBAC criteria, benefits and complications, focusing on thorough patient evaluation for safe outcomes. Facilitators included individual and facility related facilitators. The identified barriers included individual, interpersonal facility and patient related barriers. Recommendations included enhancing teamwork, addressing staffing, and ongoing training to improve VBAC outcomes. Tailored interventions like teamwork and

education are crucial to overcoming universal challenges in VBAC implementation and improving outcomes. Future research should evaluate these strategies to refine VBAC practices.

Keywords: Caesarean Section Rates; Experience; Healthcare Providers; Perspectives; Tanzania; Vaginal Birth after Caesarean Section

TABLE OF CONTENTS

CERTIFICATION i
DECLARATION AND COPYRIGHT ii
ACKNOWLEDGMENT iii
DEDICATION iv
ABSTRACT v
LIST OF TABLES x
LIST OF FIGURES xi
ABBREVIATIONS xii
OPERATIONAL DEFINITION OF TERMS xiii
CHAPTER ONE 1
1.0 INTRODUCTION 1
1.1 Background Information 1
1.2 Problem Statement 2
1.3 Theoretical framework 3
1.4 Rationale 8
1.5 Research questions 9
1.5.1 Main research question 9
1.5.2 Specific research questions 9
1.6 Study Objectives 9
1.6.1 Broad objective 9
1.6.2 Specific Objectives 9
CHAPTER TWO 10
2.0 LITERATURE REVIEW 10
2.1 Overview 10
2.2 The Understanding of Healthcare Providers on Vaginal Birth after Caesarean Section 10
2.3 Facilitators for subjecting a pregnant woman to Vaginal Birth after a Caesarean Section 12
2.4 Barriers to subjecting a pregnant woman to Vaginal Birth after Caesarean Section among Healthcare Providers 14

2.5 The recommendations to enhance vaginal birth after caesarean section among healthcare providers 16
CHAPTER THREE....19
3.0 METHODOLOGY....19
3.1 Study design....19
3.2 Area of study....19
3.3 Study population....20
3.4 Sample size determination....20
3.5 Selection criteria....21
3.5.1 Inclusion Criteria....21
3.6 Sampling Techniques....21
3.7 Data Collection Methods....21
3.8 Data analysis....23
3.9 Ethical Consideration....25
3.9.1 Ethical clearance was sought as follows....25
3.10 Trustworthiness of the study....26
3.10.1 Credibility....26
3.10.2 Conformability....26
3.10.3 Transferability....27
3.10.4 Dependability....27
CHAPTER FOUR....28
4.0 RESULTS....28
4.1 Demographic Information of Participants....28
4.2 Perspectives of HCPs on Vaginal Birth after Caesarian Section....29
4.3 Theme 1: Understanding of Healthcare Providers on VBAC....32
4.4 Theme 2: Facilitators on Subjecting Pregnant Women to VBAC....35
4.5 Theme 3: Barriers on subjecting pregnant women to VBAC....37
4.6 Theme 4: Recommendations to improve VBAC uptake by HCPs....41
CHAPTER FIVE....45
5.0 DISCUSSION....45
5.1 Discussion....45
5.2 Study Limitations and Mitigation....49

CHAPTER SIX 51
6.0 CONCLUSION AND RECOMMENDATION 51
6.1 Conclusion 51
6.2 Recommendation 51
7.0 REFERENCES 52
8.0 Appendices 61
8.1 Appendix I: Interview Guide (English version) 61
8.2 Appendix II: Interview Guide (Swahili version)) 65
8.3 Appendix III: Consent form (English version) 70
8.4 Appendix IV: Consent form (Swahili Version) 72
8.5 Appendix V: Ethical Clearance 75
8.6 Appendix VI: Introduction letter 77
8.7 Appendix VII: Permission Letter 78

LIST OF TABLES

Table 1: Coding process, subtheme and theme generation 25
Table 2: Demographic characteristics of the study participants..... 28
Table 3: Themes and Sub-themes identified from the study. 29

LIST OF FIGURES

Figure 1: Theoretical framework adapted from the socio-ecological model by Bronfenbrenner U. (1979) 7

ABBREVIATIONS

AAFP	American Academy of Family Physicians
C/S	Caesarean Section
CPD	Cephalo Pelvic Disproportion
DMO	Districts Medical Officer
EmONC	Emergency Obstetric and Neonatal Care
FIGO	The International Federation of Gynaecology and Obstetrics
IDI	In-depth Interview
SEM	Socio ecological Model
HCPs	Healthcare providers
MOH	Ministry of Health.
MOI	Medical Officer In charge
MUHAS	Muhimbili University of Health and Allied Sciences
NGO	Non-governmental Organization
NICU	Neonatal Intensive Care Unit
PPH	Postpaturm Haemorrhage
RA	Research Assistant
SDGs	Sustainable Development Goals
SOPs	Standard Operating Procedures
UNFPA	United Nations Population Fund
VBAC	Virginal Birth after Caesarean Section
WHO	World Health Organization

OPERATIONAL DEFINITION OF TERMS

Caesarean section: This is a surgical procedure in which a baby is delivered through incisions made in the mother's abdominal and uterine walls. This method is typically employed when a traditional vaginal delivery is deemed unsafe or poses risks to the health of the mother, the baby, or both. Common reasons for a Caesarean section include complications during labour, certain medical conditions, or concerns about the well-being of the mother or baby [1].

Healthcare Providers: In the context of this study, healthcare providers (HCPs) refers to professionals involved in the provision of healthcare services with specific roles such as medical doctors, obstetricians and nurse midwives, directly engaged in maternal and newborn healthcare [2].

Perspectives Perspectives in this study refer to the various viewpoints, attitudes, beliefs, and experiences that healthcare providers hold regarding the practice of VBAC. These perspectives can encompass several dimensions, including, Clinical Knowledge and Expertise, Risk Perception and Management, Patient-Centered Care, Institutional and Policy Influences, Personal and Professional Experience, and Interdisciplinary Collaboration [3].

Vaginal Birth after Caesarean Section: Refers to the delivery of a baby through the vagina by a woman who has had a previous Caesarean section. It is a medical option for women who have undergone a C-section in a previous pregnancy and wish to attempt a natural vaginal delivery in subsequent pregnancies. The decision to attempt VBAC is influenced by various factors, including the reason for the previous C-section, the type of uterine incision, and the woman's overall health [4].

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information

There has been a concerning rise in caesarean section (CS) rates globally in recent years. According to research by the World Health Organization (WHO) in 2021, CS currently accounts for over 21% of all childbirths worldwide [5], with predictions suggesting this could rise to nearly 29% by 2030 [5]. The global average CS rate increased by 9% from 12.1% to 21.1% between 2000 and 2015 [6], with notable disparities across regions. Traditionally, higher rates have been observed in high- and middle-income countries with the highest rate in low-income countries. [7–9].

The WHO recommends an ideal CS rate of 10-15% to balance the benefits for medical cases with potential risks [10]. The notion that "once a caesarean, always a caesarean" is being re-evaluated, as Vaginal Birth after Caesarean Section (VBAC) presents a viable option for women seeking vaginal delivery after a previous CS [10, 11]. However, non-indicated CS raises ethical concerns and strains healthcare finances [10, 12]. In low-income countries, unnecessary CS can have severe consequences due to substandard healthcare, limited resources, and inadequate skills to manage CS-related complications. This increases mortality and morbidity risks for both women and babies [13]. The lack of skilled HCPs, including obstetricians and anesthesiologists, and insufficient access to medical equipment like anaesthesia supplies and blood transfusion services further heighten CS-related risks [2, 14].

A strong practice of VBAC is crucial for providing safe and effective childbirth options for women with a history of CS. In Ethiopia, successful VBAC outcomes were linked to factors like previous vaginal births, adequate cervical dilation at admission, and effective labour management [15]. By providing skilled monitoring during labour and proactively managing potential complications, healthcare systems can enhance the safety of both mothers and newborns, thereby making VBAC a viable and beneficial option for eligible women [16].

A systematic review found that personalized information for women with previous CS increased VBAC rates [17]. The review highlighted that HCPs play a significant role

in VBAC rates, suggesting the need for HCP guidelines, supportive policies, and feedback mechanisms. While some studies showed positive attitudes among HCPs towards involving women in delivery decisions [2, 18], others indicated a preference for CS due to fear of responsibility or convenience [3, 19, 20]. These varying perspectives highlight potential research gaps.

Limited studies explore HCPs' views on VBAC, especially in Tanzania which has a low VBAC rate. Yet, understanding HCPs' perspectives is crucial as they guide pregnant women and influence decisions. This study aimed to investigate HCPs' perspectives regarding VBAC at Mwananyamala Hospital in Dar es Salaam, Tanzania.

1.2 Problem Statement

The rate of CS has been increasing globally. In Tanzania, the rate of cesarean section (CS) rose from 6% in 2016 to 11% in 2022[8]. Previous CS contributes to an increasing rate of repeat CS [21]. The more CSs a woman had the poorer the maternal outcomes and the greater the risk of developing problems with the placenta, such as placenta accreta, rupture of the uterus, placenta previa, preterm birth, low birth weight, postpartum haemorrhage (PPH), and death [22–24]. Newborns, by CS, have an increased risk of developing respiratory problems and gastrointestinal diseases [25].

VBAC is an attempt to reduce the CS rate. Several medical associations have provided practice guidelines for VBAC [26, 27], but these differ across countries [28]. VBAC is reported to be safe when compared with repeat CS [29]. However, VBAC rates are significantly low worldwide [30, 31]. Yussuph and Al-beity's 2023 study in Dar es Salaam, Tanzania, brought attention to a significant concern, merely 38% of pregnant women were actively involved in shared decision-making concerning their VBAC. Low involvement in shared decision-making can result in poorer health outcomes, lower satisfaction with care, and diminished autonomy for women regarding their birth choices. This impacts their mental and emotional well-being and highlights potential gaps in healthcare communication and support. Recognizing these implications is essential for enhancing maternal healthcare practices and empowering women in their VBAC decisions.

Studies on HCPs' perspectives regarding VBAC in Tanzania are limited, with prior studies mainly concentrating on maternal outcomes or patient views. This oversight neglects the critical role that HCPs play in the decision-making process for VBAC. This study aims to address this gap by exploring HCPs' attitudes, experiences, and concerns at Mwananyamala Hospital. In doing so, it seeks to contribute valuable insights that can shape policies and practices, ultimately improving support for women considering VBAC.

1.3 Theoretical framework

This study was guided by the socio-ecological model (SEM), developed by Urie Bronfenbrenner in 1979 [32], providing a structured framework for understanding and predicting health-related behaviours and decisions. The SEM is used in public health to understand the multilevel factors influencing health behaviours. By considering various influences, it provides a comprehensive framework for identifying barriers and facilitators to health, aiding in the design of effective interventions [32–34]. This model encompasses five key constructs that interact to shape an individual's approach to health issues across multiple levels: individual, interpersonal, community, organizational, and policy.

In the context of perspectives on VBAC among HCPs, the SEM offers a comprehensive framework to understand the diverse factors influencing their attitudes and decisions regarding VBAC.

At the individual level, personal attributes such as knowledge, attitudes, beliefs, and skills are critical. HCPs' understanding of the safety and benefits of VBAC, their attitudes towards the procedure, and their clinical experience and confidence in managing VBAC cases play a crucial role. For instance, an HCP’s belief in the effectiveness and safety of VBAC compared to repeat CS can significantly influence their willingness to recommend and support VBAC. HCPs that are well-informed and confident in their skills are more likely to advocate for VBAC as a viable option.

Interpersonal influences are also significant and involve relationships and interactions with colleagues, peers, and patients. These include discussions and shared experiences regarding VBAC outcomes among colleagues, support from senior medical staff, and

collaborative team dynamics that affect HCPs' confidence and decision-making. Moreover, effective communication with patients and their families about VBAC options can impact the level of support and encouragement HCPs provide.

The community level encompasses the norms, values, and attitudes prevalent within the broader healthcare setting or society. Community norms regarding childbirth practices, the prevalence of VBAC in the region, and the general acceptance of VBAC by patients can influence HCPs' perspectives. If VBAC is commonly practiced and well-accepted within the community, HCPs may be more inclined to support it. The prevailing medical culture and societal attitudes towards VBAC can either facilitate or hinder HCPs' willingness to endorse the procedure.

Organizational factors, including hospital policies, practices, and resources, also play a pivotal role. Hospitals with clear guidelines, Standard Operating Procedures (SOPs) sufficient resources (such as emergency surgical teams and necessary equipment), and institutional support for training and education on VBAC are likely to see higher rates of HCPs endorsing and facilitating the procedure. Organizational support can create an enabling environment where HCPs feel equipped and encouraged to offer VBAC as a safe and viable option for eligible patients.

Finally, policy-level influences involve local, regional, and national laws and policies that regulate or influence healthcare practices. Policies and regulations from governmental bodies or professional associations can significantly impact VBAC practices. For instance, national guidelines from reputable organizations, malpractice insurance regulations, and state health department policies can influence HCPs' willingness and ability to offer VBAC. Supportive policies that encourage and protect VBAC practices can lead to increased acceptance and implementation among HCPs, ensuring that VBAC remains a viable and safe option for women who meet the criteria.

The above constructs of the SEM interact and influence each other, creating a complex web of factors that shape HCPs' perspectives on VBAC.

At the individual level, HCPs' knowledge and attitudes towards VBAC are often shaped by their interactions with colleagues, mentors, and patients. Positive

experiences shared by peers and mentors about successful VBACs can enhance an individual HCP's confidence and willingness to support VBAC. Conversely, negative experiences or anecdotes can instill fear or hesitation, influencing an HCP’s stance on VBAC [35]. The prevailing community norms and values around childbirth also influence HCPs' personal beliefs and attitudes. If VBAC is widely accepted and practiced within the community, HCPs are more likely to view it positively. HCPs' attitudes can also influence community perceptions over time, especially if they are opinion leaders or hold influential positions within the healthcare system.

Interpersonal interactions among HCPs, such as discussions in professional forums or informal networks, contribute to the broader community's attitudes towards VBAC. Community norms and shared professional values can shape the nature of these interpersonal interactions, creating a feedback loop that reinforces prevailing attitudes and practices [36]. Additionally, team dynamics and interprofessional collaboration within healthcare organizations play a crucial role in shaping attitudes and practices around VBAC [35]. Support from colleagues and superiors can bolster an individual HCP's confidence and willingness to manage VBACs. Organizational culture, influenced by leadership and peer interactions, can either foster a supportive environment for VBAC or create barriers due to risk-averse practices or lack of consensus.

HCPs' knowledge and attitudes towards VBAC are shaped by organizational policies, resources, and training. Supportive policies and adequate resources empower HCPs to advocate for VBAC. Conversely, HCPs' engagement in VBAC can influence organizational priorities. Community demand for VBAC can prompt organizations to develop supportive policies and allocate resources, while healthcare organizations can shape community attitudes through public health campaigns, education programs, and demonstrating successful VBAC outcomes.

Organizational policies are often shaped by broader healthcare regulations and professional guidelines. National policy supporting VBAC can drive healthcare organizations to develop and implement supportive protocols. Healthcare organizations can also influence policy by providing data, feedback, and advocacy to policymakers, thereby contributing to the development of evidence-based guidelines and regulations

[19, 35]. This National policy directly impact individual HCPs by defining the legal and professional framework within which they operate. Supportive policies can encourage HCPs to offer and support VBAC. Individual HCPs, through professional associations and advocacy, can influence policy development by contributing their expertise and experiences to the policymaking process.

Policies and regulations set the context for community norms and practices. Supportive VBAC policies can normalize the practice within communities, influencing community attitudes positively. Community advocacy and public opinion can drive policy changes, creating a reciprocal relationship where community needs and preferences shape and are shaped by policy [35, 37]. Policies also influence the dynamics of interpersonal interactions among HCPs by defining standard practices and professional expectations. Supportive policies can facilitate open discussions and collaboration around VBAC. Interpersonal advocacy and collective action by HCPs can influence policy decisions, highlighting the importance of peer networks and professional organizations in shaping healthcare regulations.

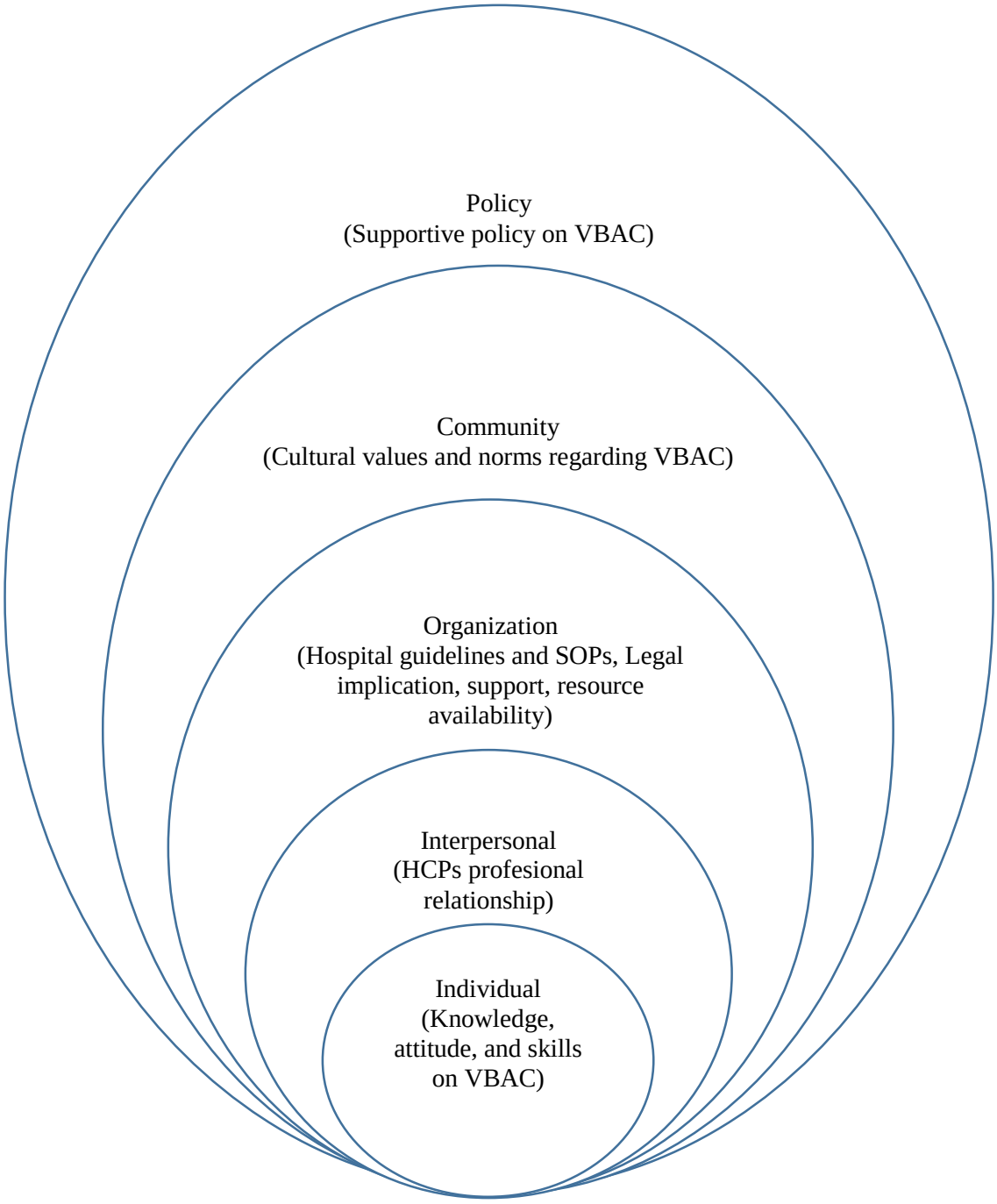


Figure 1: Theoretical framework adapted from the socio-ecological model by Bronfenbrenner U. (1979) [32].

1.4 Rationale

The justification for this study was rooted in the existing research gap, particularly the lack of exploration into the perspectives of HCPs regarding VBAC in Tanzania, with a specific focus on Mwananyamala Hospital. Recognizing that HCPs played a crucial role in guiding and advising women in their birthing choices, understanding their perspectives was essential. This study aimed to uncover the awareness, perspectives, and concerns of HCPs regarding VBAC, thereby shedding light on potential barriers and facilitators to the adoption of VBAC in the Tanzanian context.

By addressing this research problem, the findings from the study informed targeted interventions and training programs, aimed at creating a more favourable environment for VBAC. This, in turn, will contribute to the reduction of unnecessary repeat CS procedures, ultimately improving maternal and neonatal health outcomes in Tanzania. The insights gained from this research also held the potential to inform broader strategies focused on enhancing reproductive healthcare practices and decision-making processes within the country, thereby addressing a critical aspect of women's health.

1.5 Research questions

1.5.1 Main research question

What are the Healthcare Provider's perspectives on Subjecting Pregnant Women to Vaginal Birth after Caesarean Section at Mwananyamala Hospital, Dar es Salaam-Tanzania?

1.5.2 Specific research questions

i. What is the understanding of Healthcare Providers on Vaginal Birth after Caesarean Section at Mwananyamala Hospital, Dar es Salaam-Tanzania?
ii. What are the facilitators to subjecting Pregnant Women to Vaginal Birth after Caesarean Section at Mwananyamala Hospital, Dar es Salaam-Tanzania?
iii. What are the barriers to subjecting Pregnant Women to Vaginal Birth after Caesarean Section at Mwananyamala Hospital, Dar es Salaam-Tanzania?
iv. What are the recommendations to enhance Vaginal Birth after Caesarean Section at Mwananyamala Hospital, Dar es Salaam-Tanzania?

1.6 Study Objectives

1.6.1 Broad objective

To explore the Healthcare Providers' perspectives on Vaginal Birth after Caesarean Section at Mwananyamala Hospital in Dar es Salaam, Tanzania.

1.6.2 Specific Objectives

i. To describe the understanding of Healthcare Providers on Vaginal Birth after Caesarean Section at Mwananyamala Hospital, Dar es Salaam, Tanzania
ii. To describe facilitators to subjecting a pregnant woman to Vaginal Birth after a Caesarean Section among Healthcare Providers at Mwananyamala Hospital, Dar es Salaam, Tanzania
iii. To describe barriers to subjecting a pregnant woman to Vaginal Birth after Caesarean Section among Healthcare Providers at Mwananyamala Hospital, Dar es Salaam, Tanzania
iv. To describe recommendations HCPs give to improve VBAC uptake among HCPs at Mwananyamala Hospital, Dar es Salaam, Tanzania

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Overview

Vaginal birth after caesarean section (VBAC) is a topic of interest globally, regionally in Africa, and in Tanzania. The rate of CS deliveries has been increasing worldwide, including in low- and middle-income countries [23, 38]. In Tanzania, the rate of CS deliveries has also been increasing, with a study conducted at Muhimbili National Hospital in Dar es Salaam showing an increase in CS rates among low-risk groups [39]. This increase in CS rates has led to concerns about the safety and appropriateness of the procedure, as well as the potential for unnecessary interventions.

The objective of this literature review was to assess the understanding of HCPs on VBAC, describe facilitators and barriers to subjecting a pregnant woman to VBAC, and identify recommendations given by HCPs to improve VBAC uptake at Mwananyamala Hospital in Dar es Salaam, Tanzania. The literature suggested that shared decision-making between HCPs and pregnant women with prior CS on the subsequent mode of delivery improved VBAC rates and reduced the rate of repeat CS deliveries [40]. Additionally, HCPs should address fears and concerns about VBAC and provide education and counselling to all pregnant women about the risks and benefits of VBAC and CS deliveries.

This comprehensive literature review synthesized findings from studies conducted in Tanzania, across Africa, and globally to elucidate HCPs' perspectives on VBAC at Mwananyamala Hospital in Dar es Salaam, Tanzania. The goal of this review was to offer a nuanced understanding of the factors shaping HCPs' recommendations regarding VBAC and to identify effective strategies for enhancing VBAC uptake at Mwananyamala Hospital and similar healthcare settings.

2.2 The Understanding of Healthcare Providers on Vaginal Birth after Caesarean Section

VBAC is a critical aspect of maternal healthcare, presenting unique challenges and opportunities. Globally, the rising rates of CS have led to increased interest in VBAC as a viable option for eligible women, promoting positive maternal outcomes, in

Africa, the discourse on VBAC reflects the intersection of cultural, socioeconomic, and healthcare factors influencing delivery choices. In Tanzania, where Mwananyamala Hospital is located, understanding HCPs' awareness regarding VBAC was crucial for shaping maternal healthcare policies and practices.

In a seminal study conducted by Dodd and Crowther in Australia and New Zealand, HCPs' perspectives on VBAC versus elective repeat CS were rigorously examined [29]. The study revealed a noteworthy consensus among HCPs, with a substantial 40% expressing agreement or strong agreement that VBAC represents the safest option for women, bearing fewer associated risks compared to elective CS. The findings underscore the evolving understanding within the medical community regarding the optimal mode of delivery for women with a history of CS.

The positive evolution in obstetrical care perspectives is evident in recent studies across different regions. In a 2022 investigation by Miazga et al [41] involving Canadian Obstetrical HCPs, 78% of participants demonstrated a favourable stance towards actively encouraging VBAC. This shift signifies a departure from previous preferences for elective repeat CSs and reflects a growing acknowledgement within the Canadian obstetrical community regarding the safety and desirability of VBAC. These insights not only contribute to shaping evidence-based clinical guidelines but also emphasize the importance of fostering obstetric care and facilitating shared decision-making for optimal maternal and neonatal outcomes.

Similarly, a 2022 study conducted in Egypt by Khemees et al. revealed that 76.3% of physicians endorsed presenting VBAC as an option [20]. This notable acceptance within the medical community suggests an increasing acknowledgement of the safety and feasibility of VBAC, particularly for women with a history of CS. The findings aligned with global initiatives promoting evidence-based and patient-centred care, offering important insights into maternal healthcare practices. These studies collectively highlight a positive trend towards embracing alternatives to CS, emphasizing the potential impact on shaping guidelines and improving maternal and neonatal outcomes through informed decision-making on delivery methods.

In a 2020 study in Egypt by Ali and Ahmed, nearly three-fifths of nurses demonstrated poor knowledge and a neutral attitude toward VBAC [42]. The study emphasizes the necessity for targeted interventions to enhance nurses' understanding of VBAC. Recommending tailored strategies, including educational initiatives and awareness campaigns, the study suggests that healthcare institutions can play a crucial role in improving nurses' knowledge and fostering a more positive attitude toward VBAC, thereby contributing to enhanced maternal care practices in Egypt.

The literature highlights a growing global acceptance of VBAC among HCPs, with studies from Australia, Canada, and Egypt [20, 41, 43] demonstrating shifts in attitudes and practices. However, a significant research gap exists regarding the specific understanding and practices of HCPs at Mwananyamala Hospital in Dar es Salaam, Tanzania. While global studies have explored the facilitators and barriers to VBAC, there is a notable lack of research examining how HCPs at this hospital comprehend key aspects of VBAC, such as its definition, benefits, risks, and the critical factors influencing the decision to offer VBAC to women. This gap underscores the need for focused research on HCPs' understanding of VBAC at Mwananyamala Hospital, which could inform the development of tailored interventions to improve VBAC rates and enhance maternal care in Tanzania.

2.3 Facilitators for subjecting a pregnant woman to Vaginal Birth after a Caesarean Section

The global landscape of VBAC has evolved significantly, with ongoing research by Guise et al. (2010) and Landon et al. (2004) [31, 44] providing crucial insights into its safety, success rates, and acceptance factors. These studies emphasize the need to reduce unnecessary CS, highlighting the nuanced considerations of VBAC, including its safety profile and its pivotal role in promoting optimal maternal health outcomes. The contributions of Guise et al. (2010) and Landon et al. (2006) are foundational in shaping evidence-based practices and policies for improving maternal health and minimizing risks associated with repeat CS.

In the 2023 study by Yussuph and Alwy Al-beity [40], shared decision-making emerged as a pivotal facilitator in the context of VBAC. This collaborative approach between HCPs and pregnant women with prior CS proved to be a critical determinant

in significantly improving VBAC rates, concurrently leading to a reduction in the incidence of repeat CS deliveries. The findings underscore the vital importance of actively involving pregnant women in decisions concerning their mode of delivery, emphasizing a patient-centred care approach. This patient-centric paradigm not only positively influences VBAC outcomes but also contributes to improved maternal and neonatal health outcomes.

Moreover, a Tanzanian study revealed heightened CS rates among women with higher education levels and private insurance [45]. This underscores the imperative for HCPs to universally offer education and counselling, regardless of educational background or insurance status. Ensuring comprehensive information regarding the risks and benefits associated with both VBAC and CS deliveries is essential. This inclusive approach aims to empower all pregnant women, fostering informed decision-making aligned with their individual circumstances. By promoting equitable access to information, HCPs contribute to fostering a more informed and equitable maternal healthcare environment.

A study conducted by Litorp et al. in 2015 in Tanzania revealed that maternal requests for CS are influenced by factors extending beyond personal preferences. These factors include fears related to potential child loss following vaginal delivery and events associated with previous CS [46]. This underscores the critical role of HCPs in addressing these fears, providing accurate information about the safety of VBAC, and offering necessary support to pregnant women. Through addressing these concerns, HCPs contribute to creating a supportive environment that empowers pregnant women to make well-informed decisions aligned with their health and well-being.

Generally, the literature suggests that HCPs play a pivotal role in facilitating VBAC by involving pregnant women in decision-making, providing thorough education and counselling, and addressing fears and concerns. Implementation of these measures has the potential to enhance VBAC rates, reduce the occurrence of repeat CS deliveries, and ensure the safety and appropriateness of VBAC procedures. By fostering a supportive and informative healthcare environment, HCPs contribute to improved maternal outcomes and a more personalized approach to childbirth decisions.

In spite of valuable insights from few studies on facilitators of VBAC, a notable research gap persisted in understanding how these facilitators operated specifically among HCPs in low-resource settings like Mwananyamala Hospital in Tanzania. While global research by Guise et al. (2010) and Landon et al. (2004) [31, 44] highlighted the importance of evidence-based practices and shared decision-making, Yussuph and Alwy Al-beity (2023) [40] and Litorp et al. (2015) [46] emphasized patient education and addressing maternal fears, there was limited focused research on the unique factors facilitating VBAC among HCPs at Mwananyamala Hospital and similar settings in Tanzania. This gap highlighted the need to explore how HCPs there facilitated VBAC, considering local challenges and resource constraints. Such research would provide critical insights into the practical application of VBAC facilitation strategies, contributing to tailored approaches for improving maternal health outcomes in Mwananyamala and similar settings in low- and middle-income countries (LMICs).

2.4 Barriers to subjecting a pregnant woman to Vaginal Birth after Caesarean Section among Healthcare Providers

The literature reveals a limitation in the implementation of shared decision-making regarding the mode of delivery among pregnant women with prior CS, as emphasized in a study by Yussuph and Alwy Al-beity 2023 [40]. This highlights the importance of HCPs actively involving pregnant women in decision-making processes regarding their mode of delivery. Addressing this gap is crucial for aligning healthcare practices with the principles of patient-centred care, ensuring that pregnant women play an active role in shaping decisions related to their childbirth experiences. By fostering a collaborative decision-making approach, HCPs contribute to a more patient-centric and empowering maternity care environment.

Moreover, a Tanzanian study conducted by Misaeli et al. in 2017 [45] revealed that maternal requests for CS were associated with factors extending beyond women's preferences. These factors included a perceived fear of child loss following vaginal delivery and events related to previous CS. This underscores the critical role of HCPs in addressing these fears and concerns, providing accurate information to pregnant women, and emphasizing the safety and appropriateness of VBAC. Consistently, in a 2018 study in Bangladesh by Begum et al., obstetricians exhibited a notable preference

for CS over vaginal birth [47]. The study highlighted fear of litigation and personal maternity experiences as influential factors in this preference. Intriguingly, a misalignment was found between obstetricians' knowledge of CS indications and international recommendations. These findings underscored the need for refining obstetric practices and aligning them with evidence-based international guidelines to enhance maternal and neonatal outcomes.

Furthermore, a study conducted by Litorp et al. in 2015 [46] revealed that CS deliveries were more prevalent among women with higher education levels and those who were privately insured. This indicates a potential need for HCPs to offer education and counselling universally to all pregnant women, irrespective of their education level or insurance status. The aim is to ensure that women receive comprehensive information about the risks and benefits associated with both VBAC and CS deliveries. This inclusive approach supports informed decision-making and contributes to a more equitable provision of maternal healthcare services.

lastly, in a 2012 study in Egypt by Shaaban et al., obstetricians' perspectives on CS were explored, revealing intricate dynamics shaping their attitudes [48]. The research highlighted factors such as insecurity in managing challenging vaginal deliveries, a fear of legal liability, non-organizational practices within the healthcare system, and a significant financial incentive for caesarean births. These findings underscore the complex interplay between medical, legal, and economic considerations influencing obstetricians' decision-making regarding the mode of delivery in Egypt. The study contributes valuable insights for healthcare policy, practice, and further research in understanding the multifaceted factors guiding obstetric care decisions.

Several studies in developing countries have highlighted barriers to promoting VBAC, yet a significant research gap remains in understanding the integration of shared decision-making and patient-centred care within low-resource settings, such as Tanzania. While studies by Misaeli et al. (2017) [45] and Litorp et al. (2015) [46] identified key barriers, including maternal fears, preferences, and socio-economic disparities, limited research has examined how HCPs in resource-constrained and culturally diverse environments addressed these challenges. The ability of HCPs to effectively counsel and support women considering VBAC is often influenced by

external factors, such as inadequate training, lack of institutional support, and insufficient access to emergency obstetric care, all of which are common in LMICs. Moreover, studies exploring the actual barriers faced by HCPs in opting for VBAC in LMICs like Tanzania were notably lacking, especially concerning the complex interplay of legal, financial, and systemic challenges that could drive a preference for CS. This includes concerns about potential litigation, the convenience and predictability of CS, and institutional norms that may favour surgical intervention over natural childbirth. Addressing these gaps in the literature is crucial for developing context-specific interventions that align with the unique socio-cultural and economic realities of LMICs like Tanzania. It also underscores the importance of equipping HCPs with the necessary resources, training, and institutional backing to confidently recommend and support VBAC, ultimately aiming to reduce unnecessary CS and improve maternal and neonatal outcomes in low-resource settings.

2.5 The recommendations to enhance vaginal birth after caesarean section among healthcare providers

The recommendations to enhance VBAC among HCPs globally, in Africa, and in Tanzania are informed by various studies and guidelines. Here are the insights and recommendations from the literature:

The study conducted by Lundgren et al., 2016 provides insights into the perspectives of midwives and obstetricians in nations with high VBAC rates [19]. Their findings underscore the importance of the overall design of the nation's maternity care system, the collaborative dynamics between midwives and obstetricians, and the quality of care administered during pregnancy and delivery as pivotal factors influencing the VBAC rate.

In accordance with the studies conducted by Litorp et al. in 2013 [49], HCPs play a crucial role in offering comprehensive education and counselling to all pregnant women, irrespective of their educational background or insurance status, regarding the risks and benefits associated with VBAC and CS deliveries. This approach is instrumental in dispelling myths and misconceptions surrounding these delivery methods, fostering a clearer understanding among pregnant women. By providing evidence-based information, HCPs empower women to make informed choices

tailored to their individual circumstances. The emphasis on holistic education and counselling aligns with the broader objective of ensuring patient autonomy and promoting optimal maternal and neonatal outcomes in the context of childbirth.

The American Academy of Family Physicians (AAFP) Foundation in 2019, comprising a consortium of experts, advocates for the establishment of hospital guidelines aimed at facilitating access to VBAC [50]. The recommendation emphasizes the importance of actively monitoring and enhancing the quality of care provided to women opting VBAC, ensuring that comprehensive support and resources are readily available. By implementing such guidelines, healthcare institutions can contribute to the safety and efficacy of VBAC procedures, aligning with evidence-based practices and promoting positive maternal health outcomes. This approach underscores the commitment to patient-centred care and the continuous improvement of healthcare standards in the context of childbirth.

Experts from the Cleveland Clinic underscore the imperative for HCPs to initiate individualized discussions with pregnant women, taking into account their distinctive health history, the prevailing circumstances of the current pregnancy, and the rationale behind the previous CS [51]. This tailored approach is crucial for discerning the most appropriate mode of delivery for each woman, aligning with the principles of personalized and patient-centred care. By considering the nuanced factors specific to each individual, HCPs can optimize decision-making processes and contribute to the overall well-being of pregnant women, ensuring that the chosen mode of delivery is tailored to their unique medical and obstetric circumstances.

The studies conducted by Litorp et al. (2015) [46] and Misaeli et al. (2017) [45] underscore the significance of shared decision-making in the context of pregnant women with prior CS. HCPs emphasized the importance of actively involving pregnant women in the decision-making process regarding their mode of delivery. The implementation of shared decision-making has demonstrated notable improvements in VBAC rates, concurrently resulting in a reduction in the incidence of repeat CS deliveries. This highlights the pivotal role of collaborative decision-making in influencing delivery outcomes and advocates for a patient-centred approach to enhance maternal healthcare practices.

In the study conducted by Misaeli et al. (2017) [45], HCPs emphasized the crucial role of HCPs in addressing fears and concerns related to VBAC. The findings underscored the significance of HCPs in providing accurate information to pregnant women about the safety and appropriateness of VBAC. Additionally, existing studies have indicated that maternal requests for CS are influenced by factors beyond women's preferences [3, 19, 45]. These factors include a perceived fear of child loss following vaginal delivery. The collective evidence accentuated the importance of HCPs in not only addressing specific fears associated with VBAC but also in providing comprehensive information to enable informed decision-making by pregnant women regarding the choice of delivery method. This underscored the multifaceted considerations that HCPs needed to navigate in promoting maternal well-being.

Vaginal Birth after Caesarean Section practices in East Africa encounter significant challenges. Many mothers arrive late at hospitals following unsuccessful home deliveries, facing delays in accessing necessary care, including surgery and blood transfusions [52]. A need for clear national guidelines, improved antenatal preparation, and better information for mothers on their delivery options [52]. Additionally, inadequate fetal monitoring and outdated medical equipment raise concerns about maternal and neonatal outcomes in East Africa.

Despite the growing body of research on VBAC, a notable gap remains in understanding the practical implementation of these recommendations in low-resource settings, particularly in sub-Saharan Africa, including Tanzania. Studies by Lundgren et al. (2016) [19] and Litorp et al. (2013, 2015) [46, 49] emphasize the importance of holistic education, counselling, and shared decision-making in improving VBAC outcomes. However, there is a lack of research on how these interventions are adapted to environments characterized by limited resources, cultural nuances, and high maternal mortality rates. Furthermore, no studies have been identified in Tanzania that specifically explore HCPs' recommendations on VBAC in a way that addresses the local healthcare system’s unique challenges. This highlights the urgent need for region-specific research to develop tailored VBAC strategies that align with the healthcare infrastructure and cultural context, ensuring safer and more accessible childbirth options for women.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study design

A Descriptive qualitative study design was conducted to gain a comprehensive understanding of HCPs' perspectives regarding the use of VBAC for pregnant women. Opting for a descriptive and qualitative study design is ideal for deeply exploring healthcare providers' perspectives on VBAC. This approach captures rich, nuanced insights into their experiences and the unique challenges at Mwananyamala Hospital. While mixed methods may enhance future studies, the qualitative focus here ensures a comprehensive understanding of the specific issues involved. The focus was to explore participants' perspectives and how they made sense of a particular phenomenon. This study aimed to uncover the obstacles and difficulties encountered by HCPs in implementing VBAC specifically at Mwananyamala Hospital in Tanzania. The strengths of this study design lay in its potential to provide in-depth insights, contextually relevant information, a deeper understanding of HCPs' perspectives, and the flexibility to adjust data collection methods as needed. By leveraging these advantages, researchers comprehensively explored the perspectives of HCPs in implementing VBAC at Mwananyamala Hospital, Tanzania.

3.2 Area of study

Mwananyamala Hospital is situated in the Kinondoni Municipal District of Tanzania. Kinondoni Municipal Council is among the five districts within the Dar es Salaam Region of Tanzania. It shares boundaries with Bagamoyo District and Kibaha of the Pwani Region to the north, the Indian Ocean to the east, and Ubungo District to the west, and Ilala District to the south. It is covering an approximate area of 321 km2 (124 sq mi). The Kinondoni Municipality has 197 recognized health facilities, 27 of which are public and 170 of which are private parastatal, or faith-based [53].

Mwananyamala Hospital, was selected randomly among three Regional Referral Hospitals in Dar es Salaam, ensures unbiased representation for a comprehensive exploration of VBAC perspectives. As a key player in maternal healthcare, the hospital provides essential services in pregnancy, childbirth, and postnatal care. Pregnant women referred from lower-level health facilities, such as dispensaries and health

centers, are directed to Mwananyamala Hospital's maternity unit. The facility takes on the responsibility of managing the care for women with previous scars and other danger signs or risk factors during pregnancy, as they are considered to be at a heightened risk. In 2023, Mwananyamala Hospital recorded 7,193 deliveries, as documented in its register. Among these, 66.8% constituted vaginal deliveries, amounting to 4,806, while CS comprised 33.2%, with 2,387 cases (source: Mwananyamala Hospital register). This information underscores that the prevalence of CS deliveries at the hospital surpasses the nationally and internationally accepted range for CS procedures.

3.3 Study population

The participants in this study were HCPs who were directly involved in obstetric care at Mwananyamala Hospital. This encompassed medical doctors, obstetricians and nurse midwives who played a role in the implementation of VBAC at Mwananyamala Hospital. These HCPs were responsible for the well-being of pregnant women, especially during the process of childbirth.

3.4 Sample size determination

The saturation principle was foundational to this study, steering our approach to determining sample size. We aimed for a minimum of 12 interviews, consistent with established guidelines for phenomenological and exploratory research [54]. This number was essential for addressing the complexity of the phenomenon, enabling us to explore a diverse range of perspectives while keeping our scope focused [55]. Data saturation was achieved based on the comprehensive information provided by all study participants. The decision to conclude data collection was made when the final three interviews produced no novel insights or themes, reinforcing the notion that saturation had been reached [56]. This approach ensures that all relevant perspectives were captured, and no significant new information emerged, indicating that the data were robust and sufficient for the study's objectives. The study involved in-depth interviews with 15 HCPs working in the labour ward at Mwananyamala Hospital. This group included four medical doctors with bachelor's degrees, three obstetricians with master's degrees, and eight nurse midwives with diplomas or degrees. However, it’s crucial to

recognize that this sample size may not encompass all relevant viewpoints, which could affect the overall richness and comprehensiveness of our findings.

3.5 Selection criteria

3.5.1 Inclusion Criteria

Doctors with qualifications ranging from bachelor's degrees (Medical Officers) to specialist (obstetrician) levels were included. For nurse midwives, eligibility ranged from diploma level to master's, with a prerequisite of a minimum of three years of experience and above working in maternity wards for all participants. HCPs meeting these criteria received invitations to participate, and their involvement in the study was subject to their voluntary agreement to sign informed consent forms.

3.6 Sampling Techniques

This study used a non-probability sampling technique, specifically Purposive sampling. The study recruited and interviewed 15 HCPs, consisting of seven doctors and eight nurse midwives who met the inclusion criteria. Participants were chosen based on established criteria, including their experience (3 years and above) in the care and monitoring of people undergoing VBAC procedures in the maternity wards.

3.7 Data Collection Methods

In this study, data were collected through in-depth interviews (IDIs) using semi-structured interview guides (Appendix I) to capture HCPs’ perspectives on VBAC services. The interview questions were developed through a multi-step process, starting with a literature review to identify key themes and gaps aligned with the study's objectives. Open-ended questions were crafted to explore HCPs' experiences, facilitators, challenges and recommendations. To evaluate the interview tool's effectiveness, a pretest was conducted with two HCPs at Mwananyamala Hospital to assess the clarity and relevance of the questions. The recorded interviews were then shared and discussed with supervisors and senior researchers for feedback. Any modifications or suggested improvements identified during this pretest were incorporated to enhance the interview tool. Importantly, the results of this pilot test were not included in the subsequent analysis. The final interview guide, approved by the research team, provided a structured yet flexible framework to enhance the validity and reliability of the data collected.

To assist with data collection, one qualified RA was recruited. The RA, with a nursing and midwifery background, was proficient in the local language (Kiswahili) spoken by participants. The selection criteria prioritized expertise, professionalism, and collaborative skills to ensure smooth data collection. The RA played a crucial role in conducting interviews and supporting various research activities.

The RA received thorough training over two days to prepare for the study. On the first day, the RA was briefed on the study's objectives, emphasizing the importance of understanding HCPs' perspectives on VBAC and the anticipated outcomes. Ethical considerations were also discussed in detail, covering confidentiality and participant rights. The second day focused on practical skills, including conducting interviews, active listening, and note-taking techniques. Role-playing exercises helped the RA practice these skills and receive constructive feedback. Additionally, training on collaborative skills ensured she could work effectively as part of the research team, creating a supportive environment for data collection. This integrated approach ensured a systematic and ethical data collection process for a robust exploration of HCPs' perspectives on VBAC.

Each HCP was individually interviewed to explore their knowledge and perceived barriers and facilitators related to VBAC. The interviews were recorded and transcribed verbatim, with field notes taken to capture non-verbal cues and contextual observations. To address potential interviewer bias, the principal investigator (PI) adhered to neutral interviewing techniques and practiced active listening to ensure participants felt comfortable sharing their perspectives. The research team also employed probing techniques to encourage deeper responses. Additionally, a research assistant (RA) was trained in these methods.

In approaching study participants, individuals were personally invited based on their experience of working in the labour ward. A clear explanation of the study's purpose and nature preceded obtaining informed consent. Only participants providing informed consent were included in the study. Data collection was a collaborative effort between the PI and the trained research assistant.

The interview guide consisted of two sections. Section I captured socio-demographic characteristics, while Section II focused on awareness, perspectives on facilitators and barriers and recommendations toward VBAC through five (5) questions.

3.8 Data analysis

The interviews were recorded in audio format and subsequently transcribed. The transcripts were then translated into English as needed. The data analysis followed the Thematic Analysis framework, a qualitative approach developed by Braun and Clarke [57]. Thematic Analysis is a systematic and adaptable method designed to identify, analyze, and articulate patterns (themes) within data. It guided the systematic exploration of perspectives among HCPs. Data analysis was as follows:

Phase 1: Familiarization with Data: The PI fully immersed herself in the collected data by thoroughly reading and re-reading the transcripts to gain a comprehensive understanding of the information. Non-verbal cues noted during interviews were also considered, enriching the interpretation of the data. The analysis framework was meticulously developed and summarized in an Excel sheet, ensuring the capture of all pertinent data points. Utilizing Excel ensured every significant piece of information was recorded, making the analysis thorough and efficient, thereby maintaining the integrity of the study's findings.

Phase 2: Generating Initial Codes: Another Excel sheet was created specifically as a codebook. Initial codes were generated from the collected data, identifying interesting and meaningful elements. The deductive thematic analysis approach, guided by pre-set questions related to the study's objectives, facilitated this process. The codes were initially translated from Kiswahili to English, then systematically organized and categorized into subthemes.

Phase 3: Themes: Themes, encapsulating the core meaning of the data, were deductively developed in alignment with the research questions, objectives, and theoretical framework. Subthemes were classified based on shared characteristics, differences, and patterns, and subsequently organized into broader overarching themes.

Phase 4: Reviewing Themes: Connections between identified themes were analyzed to attain a more comprehensive understanding of the data. By the end of this stage, the

PI had a clear narrative regarding the knowledge, barriers, facilitators, and recommendations of HCPs towards VBAC trials at Mwananyamala Hospital.

Phase 5: Defining and Naming Themes: This step involved finalizing the themes and refining their definitions to clarify their relationship with the main proposed themes.

Phase 6: Producing the Report: The themes that were identified served as a guide for producing a concise and clear explanation of knowledge on VBAC, facilitators and barriers for subjecting women to VBAC, and healthcare providers' opinions on improving VBAC management. To enrich the report, each subtheme's relevant quotes were related to a summary of the information.

Thematic Analysis was acknowledged as an iterative process, enabling ongoing refinement and exploration of themes as the PI revisited the data to ensure completeness and accuracy. This iterative process of data collection, analysis, and theme development was dynamic. Subsequent interviews and discussions delved deeper into new and recurrent themes emerging from earlier interviews, providing a comprehensive understanding of barriers and perspectives related to VBAC among HCPs.

Table 1: Coding process, subtheme and theme generation

TEXT	CODES	SUBTHEME	PREDETER MINED THEME
"The first thing is that the first cesarean and this current pregnancy should be at least two years apart. Another factor is that the reason for the first operation should not be present in this pregnancy. Additionally, the baby's presentation and position are also important. I think that is it."	• Interval to the current pregnancy • Reason for previous C/S • Fetal presentation and position	Criteria of subjecting women to VBAC	Understanding of Healthcare Providers on VBAC

3.9 Ethical Consideration

Ethical approval for this study was obtained from the Institutional Review Board at Muhimbili University of Health and Allied Sciences (MUHAS) in Tanzania, with the reference number MUHAS-REC-04-2024-2174. In addition, prior consent was diligently sought from the Medical Officer in Charge of Mwananyamala Hospital before initiating the study at his health facility. Before conducting the interviews, each participant was provided with a clear explanation of the study's objectives and methods. They were then requested to provide both verbal and written informed consent to participate in the study.

3.9.1 Ethical clearance was sought as follows

This study strictly adhered to ethical guidelines, ensuring participant anonymity through signed consent forms and data anonymization. The primary investigator introduced herself to relevant medical staff, including the Medical Officer in Charge of Mwananyamala Regional Referral Hospital. Participants received a participation information sheet, and written consent was obtained. Participants were informed of their right to decline or withdraw at any point. Security measures were implemented to

safeguard participant information. Data collection was convenient for participants and caused no harm.

3.10 Trustworthiness of the study

The quality, comprehensiveness, and relevancy of the data collected determine how reliable this study is. A thorough preparation and advanced proficiency in data collection, analysis, and verification were necessary for establishing trustworthiness [58]. In order to win the trust of the informants, a significant amount of time was spent in the field gathering detailed data, establishing rapport, and conducting interviews in Kiswahili. This thorough methodology increased the study's trustworthiness by ensuring that the conclusions appropriately represented the facts.

Additionally, the researchers' credentials and experience especially as co-authors added to the study's general credibility. Furthermore, the study complied with all ethical requirements, including gaining IRB-MUHAS ethical clearance, getting informed permission, and protecting anonymity.

3.10.1 Credibility

A thorough interview guide was produced by the researcher before fieldwork to assure trustworthiness. To record the participants' experiences honestly, the researcher established a connection with them and engaged them in their natural surroundings. The digital recordings of the interviews were immediately followed up with a verbatim transcription. Participants were asked to define unclear phrases to verify the accuracy of the data. Data adequacy was assessed using audiotapes and field notes. To identify ambiguities and improve comprehension of the results, the researcher also made a substantial effort to cross-reference audio recordings with transcribed data.

3.10.2 Conformability

Conformability is the degree to which the results of the research can be verified by other researchers [59]. To guarantee conformance, thorough records of the study's participant selection, sampling strategies, data gathering, and data analysis were kept. Colleagues evaluated the transcriptions of the data and the field notes, which the researcher then interpreted before sharing with the supervisor. To improve

conformability, participant quotes were included with the findings, which were provided verbatim.

3.10.3 Transferability

The study gave participants a thorough explanation of the study's objectives and included a clear description of the environment to ensure transferability. In order to facilitate comparisons with relevant studies, actual quotes from the interviews were provided along with the use of purposeful sampling. The results were presented with great care, along with comprehensive participant descriptions and contextual data.

3.10.4 Dependability

The researcher continuously evaluated and modified the in-depth interview guide to capture factual information and take into account new challenges and insights that emerged throughout data collection to guarantee reliability. The researcher also conducted consistent interviews. The researcher also made sure that data interpretation and gathering was in line with the viewpoints of the participants.

CHAPTER FOUR

4.0 RESULTS

4.1 Demographic Information of Participants

In this study, a total of 15 participants were purposively recruited from Mwananyamala Regional Referral Hospital in Kinondoni municipal council, Dar es Salaam. The participants included four medical Officers, three obstetricians, and eight nurse midwives. All participants had over three years of experience working in the labour ward. Selection criteria considered factors such as sex, age, level of education, and professional experience. The demographic characteristics of the study participants are detailed in Table 2.

Table 2: Demographic characteristics of the study participants

Participant	Age	Gender	Level Education of (Diploma,-Degree, Master's Degree)	Professional qualifications (Medical Officer, Obstetrician Midwife)	Number of years working at Mwananyamala Hospital (Labour ward)	Training or workshops attended related to VBAC (YES/NO)
P1	29	Female	Degree	Medical Officer	3	NO
P2	29	Male	Degree	Medical Officer	4	NO
P3	55	Male	Degree	Medical Officer	5	NO
P4	30	Female	Diploma	Nurse Midwife	4	NO
P5	34	Female	Diploma	Nurse Midwife	9	NO
P6	30	Female	Degree	Nurse Midwife	4	NO
P7	29	Male	Degree	Medical Officer	4	YES
P8	34	Female	Diploma	Nurse Midwife	10	NO
P9	44	Male	Masters degree	Obstetrician	12	NO
P10	44	Female	Diploma	Nurse Midwife	11	NO
P11	44	Female	Degree	Nurse Midwife	7	NO
P12	44	Female	Diploma	Nurse Midwife	10	NO
P13	49	Female	Masters degree	Obstetrician	11	NO
P14	47	Female	Diploma	Nurse Midwife	15	NO
P15	50	Female	Masters degree	Obstetrician	7	NO

4.2 Perspectives of HCPs on Vaginal Birth after Caesarian Section

The study participants were asked several questions including sharing their understanding on VBAC, to say the factors that contribute to healthcare providers being more inclined to subject a pregnant woman to VBAC, share factors that prevent HCP on Subjecting Pregnant Women to VBAC and explain their suggestions to improve VBAC uptake. From the analysis four themes and 15 Sub-themes were obtained (Table 3).

Table 3: Themes and Sub-themes identified from the study.

Themes	Sub-themes	Codes
1. Understanding of Healthcare Providers on VBAC	a. Meaning of VBAC	• VBAC means vagina birth after C/S • VBAC is trial of Normal birth after C/S • VBAC means trial of natural birth after C/S
	b. Criteria of subjecting women to VBAC	• Reason for previous C/S • Interval to the current pregnancy • Fetal presentation and position • Type of incision
	c. Benefits of successful VBAC	• Offers Quick recovery following normal birth • Mother can Instantly breastfeed her baby • It Reduces the number of scars
	d. Complications of VBAC	• Potential uterine rupture • Low foetal score or birth asphyxia • Risk of severe bleeding

2. Facilitators on Subjecting Pregnant Women to VBAC	a. Indiviadual related Facilitators	• Availability of staff with skills and abilities to manage VBAC • Availability of obstetricians registrars and nurse midwives • Daytime staff adequacy allows VBAC • A full dilated cervix determine VBAC • Perform VBAC if 9 cm or second stage of labour
	b. Facility related facilitators	• Availability of operating theatre • Availability of essential equipment like catheters and cannula. • Confidence knowing that everyone is present and ready during the shift • Teamwork involving obstetricians and anesthesiologists
3. Barriers on subjecting pregnant women to VBAC	a. Indiviadual related barriers	• Fear of try and fail of VBAC • Fear of uterine rupture • Fear of encountering flesh stillbirth • Fear of legal responsibility • Lack of education on the safety of VBAC • Lack of on-job training among providers

	b. Facility related barriers	• Absence of protocol or SOPs allowing VBAC • No formal guidelines for VBAC • No specific policies for VBAC • Few healthcare workers to monitor labour • An increased number of patients prevent VBAC
	c. Interpersonal related barriers	• Difference viewpoints between team members • Minimal agreement in team decision • Lack of cooperation between providers
	d. Patient related barriers	• Use of local herbs which interfere with VBAC • Use of traditional medicines during labour
4. Recommendations to improve VBAC uptake by HCPs	a. Availability of active guidelines and policies emphasizing utilization of VBAC	• Development of new policy on VBAC • Develop SOP and guidelines for VBAC
	b. Offer on-the-job training on VBAC	• Train staff to instil confidence and address fears • Offer on-job training on VBAC
	c. Enhancing Staffing for Effective VBAC Management	• Government increase number of competent staff • Government financial support to promote work morale

		• Increase the number of competent midwives
	d. Empowering mothers and community through comprehensive education on VBAC Hospital	• Inform mothers on reasons for previous C/S • Educate mothers regarding the benefits of VBAC • Educate pregnant women to avoid local herbs • Proper examination and triage at RCH clinics
	e. Administration should enhance effective interdisciplinary teamwork for VBAC	• Have a team which is fighting together • Specialists should collaborate with juniors

4.3 Theme 1: Understanding of Healthcare Providers on VBAC

Participants were invited to discuss their overall understanding of VBAC services. From the analysis, four sub-themes were identified: a) Meaning of VBAC, b) Criteria for Subjecting Women to VBAC, c) Benefits of Successful VBAC d) Complications of VBAC.

a) **Meaning of VBAC**

HCPs said VBAC is when a woman chooses to deliver her baby vaginally after having previously undergone a CS. Participants generally explained VBAC is feasible for mothers who had a previous CS for reasons unrelated to complications during delivery, such as the size of the baby, maternal strength, or fetal position.

"What I know about giving birth naturally after a caesarean section is that when you decide to do so, it involves a mother who had previously delivered a child via CS not because of a problem with the birth canal but due to other reasons, such as the baby being too big, the mother lacking strength, or the baby being in a bad position,

*although this is not always the case. Therefore, you can try to have the mother give birth naturally, but with close supervision because complications can also arise." (P0*3*, Medical Doctor,5 years experience).*

Additionally, other participants said VBAC is a trial of vaginal birth after a previous CS.

"Giving birth naturally after a caesarean section, as I understand it, is a way we give the mother who has previously undergone an operation the opportunity to see if she can deliver subsequent children naturally. (P08, Nurse Midwife, 10 years experience)."

b) **Criteria for Subjecting Women to VBAC**

Participants were asked to share their understanding of the criteria for subjecting women to VBAC. HCPs mentioned the reason for the previous CS, the type of incision made during the prior CS and the interval between pregnancies, are the key factors to consider when subjecting women to VBAC.

"The first thing is that the first cesarean and this current pregnancy should be at least two years apart. Another factor is that the reason for the first operation should not be present in this pregnancy. Additionally, the baby's presentation and position are also important. I think that is it. (P01Medical Doctor 3 Year experience)"

c) **Benefits of Successful VBAC**

Participants reported that women who give birth naturally have shorter recovery periods compared to repeat CS, have a lower risk of surgical complications, Mothers can instantly breastfeed their babies and mothers have a reduced chance of infections.

"Firstly, she will be able to leave the ward earlier because after giving birth naturally, she recovers well. Within 72 hours, she can go home, and after 24 hours, she is free to carry out her other activities. She will avoid the side effects of anaesthesia, such as headaches, and will be able to continue breastfeeding her baby as usual. This also

reduces her costs and the time spent in the hospital." (P14 Nurse Midwife, 14 years experience)

Additionally, HCPs noted that VBAC reduces the number of uterine scars and increases the likelihood of women having as many children as they desire in future pregnancies.

"There are benefits because, for those who want to have five or six children, if they have the opportunity, giving birth naturally the second time allows them to increase the number of children. Secondly, it benefits the mother by preventing unnecessary scars. Another advantage is that it reduces the risk of complications associated with cesarean sections". (P08 Nurse Midwife, 10 years experience)

Healthcare providers also mentioned that women who opt for VBAC often have the strength to care for their babies immediately after birth, including initiating breastfeeding right away.

"On the other hand, a mother tends to be strong in providing care for her child after giving naturally birth because, once the pain subsides, she experiences relief and happiness with her baby. Even when it comes to caring for the child, her mind settles more easily compared to a person who underwent a CS and might need counselling and pain management, remaining stressed. "(P10 Nurse Midwife 10 years experience)

d) **Complications of VBAC**

Participants were asked about potential risks connected with VBAC for pregnant women. Most HCPs reported that uterine rupture is a major complication of VBAC. Participants stated that VBAC can result in uterine rupture, which can lead to uterine removal, severe bleeding, and may lead to maternal death and fetal distress.

"Eh! The risks are, firstly, the previous incision can rupture, which can lead to complications for both the mother and the baby. The mother may experience heavy bleeding, the uterus may need to be removed, and if she does not receive timely care, she could even die. For the baby, there could be fetal distress. This means the baby may fail to be born and could die in the womb. (P09, Obstetrician 12 years experience)"

Additionally, participants mentioned that VBAC may involve prolonged labour, which can lead to low birth scores and result in birth asphyxia.

"The possible complications, maybe if the labour has been prolonged, the baby might get a low score or it may lead to birth asphyxia. I think that's it." (P12, Nurse Midwife, *10 years experience)*

4.4 Theme 2: Facilitators on Subjecting Pregnant Women to VBAC

Participants were asked to share factors that contribute to healthcare providers being more inclined to subject a pregnant woman to VBAC. Under this theme, two subthemes emerged from the analysis. a) Individual related facilitators and b) Facility related facilitators.

a) Individual Related Facilitators

Healthcare providers reported that having staff trained in VBAC management significantly facilitates recommending VBAC for women. They noted that healthcare providers with specialized knowledge and skills in managing VBAC are better equipped to assess candidates, monitor labor, and handle complications, thereby increasing the likelihood of successful VBAC.

"As I said, there should be enough staff, including nurses and doctors, registrars, and specialists. The presence of skilled personnel, as well as the availability of infrastructure that allows you to quickly assist the mother in case of any complications." (P04, Nurse Midwife, 4 years experience)

More over HCPs said they subject eligible women to VBAC during the daytime due to the presence of adequate staffing.

"We allow plenty of time from morning until evening because in the morning we have enough staff." (P08, Nurse Midwife 10 years experience)

Participants said they recommend VBAC for pregnant women who arrive with a fully dilated cervix at ten centimeters. HCPs said they typically opt for a normal vaginal delivery when the mother is in the late stages of labour.

"Perhaps a mother arrives fully dilated at ten centimetres. You can't take her to the theatre; you decide to go ahead and assist her delivery, seeing that she can push." (P01, Medical doctor, 3 years experience)

Additionally, participants emphasized that near-complete cervical dilation is a crucial factor in facilitating VBAC for pregnant women.

"If a mother arrives with eight, nine, or seven centimetres of dilation, we say let's wait a little while, maybe give her a few hours, and she'll likely deliver by then." (P06 Nurse Midwife, 4 years experience)

b) Facility Related Facilitators

When asked to express their perspectives on facilitators of subjecting pregnant women to VBAC trials, participants stated that the availability of equipped theatres increases HCPs' confidence in subjecting pregnant women to VBAC.

"The theatre is available..... These resources provide the confidence to consider attempting VBAC." (P09, Obstetrician, 10 years experience)

Moreover, HCPs said having medical equipment and resources readily available to manage complications that may arise during VBAC facilitates them to subject women to VBAC.

"The equipment is currently available. Because when mothers come, they pay for it, so even if they don't pay or if a mother comes needing emergency care, she will be treated and prepared, and payment can be settled later. In other words, mothers cannot be denied services due to a lack of equipment." (P11, Nurse Midwife, 7 years experience)

Participants also mentioned that the presence of skilled HCPs, such as nurses, anaesthetists, and gynaecologists, encourages them to opt for a VBAC trial if the woman is eligible. Healthcare providers stated that teamwork involving obstetricians,

midwives, anesthesiologists, and supportive management influences their decision to attempt VBAC.

"We must have teamwork, ensuring close monitoring of both the mother and her baby's condition to prevent complications. Additionally, we need to prepare the theatre team ensuring anaesthesia is ready and a doctor is available for any emergencies." (P12, Nurse Midwife,10 years experience)

Additionally, participants mentioned that the availability of skilled healthcare providers increases the confidence of other healthcare providers to opt for VBAC, as they can receive immediate assistance when needed.

*"Teamwork is crucial because it boosts confidence among our nurses and junior doctors. Knowing that everyone is around and everything is in place reassures them in handling any situation that arises". (P1*3*, Obstetrician 11 years experience)*

4.5 Theme 3: Barriers on subjecting pregnant women to VBAC

Participants were asked to explain the factors that prevent HCP from considering VBAC for pregnant women. From this theme, 4 subthemes emerged through analysis. a) Individual related barrier, b) Facility related barrier c) Interpersonal related barrier and d) Patient related barriers.

a) Individual Related Barriers

When participants were asked to share their perspectives on barriers to subjecting pregnant women to VBAC, they reported concerns about uterine rupture, inadequate cervical dilatation, fresh still birth and the fear of legal responsibility as the barriers of subjecting pregnant women to VBAC trials.

"This fear is caused by experiences that others have had; you find someone has tried VBAC and got uterine rupture, lost the baby and the mother's uterus." (P07, Medical Doctor, 4 years experience)

Participants expressed fear of attempting and failing VBAC, potentially leading to morbidity or even death for the mother and her baby. Healthcare providers reported that they often opt for repeat cesarean sections instead of VBAC because they perceive

cesarean sections as safer and more predictable for managing cases with a history of previous cesarean sections compared to VBAC.

"….So, a person enters that fear that no, not to try again scar! No, for me, once I see a scar, it is better I just take them and do a cesarean section to remove the baby things to go on." (P05, Nurse Midwife, 9 year experience)

Participants reported the lack of education on the safety of VBAC and the absence of on-the-job training hinder them from considering VBAC for pregnant women with a previous scar. They cited the lack of necessary skills in managing VBAC as a bottleneck for considering VBAC.

"So now many doctors and even nurses have less knowledge because in the past we had a full year of midwifery training, which covered many things and gave us a deeper understanding compared to now". (P14, Nurse midwife,15 year experience)

Participants mentioned that some HCPs have limited skills in managing women who choose VBAC.

"…Sometimes people lack the proper strategies to assist mothers who come with this challenge." (P09, Obstetrician, 12 years experience)

b) Facility related barriers

When participants were asked about barriers to recommending VBAC for pregnant women, HCPs highlighted the absence of formal guidelines and SOPs supporting VBAC within their facility as a significant hindrance. Most participants noted the lack of protocols or SOPs permitting VBAC at Mwananyamala Hospital, and where such protocols do exist, they do not prioritize VBAC as a preferred option.

"Hospital or ward protocols, no SOPs are allowing us to attempt a scar trial. Our SOPs do not permit us to attempt scar trials at all unless the doctor decides to commit." (P01, Medical doctor, 3 year experience)

Participants further said there are no SOPs specifically targeted management of VBAC trails

"We have SOPs for routine maternal care, but none specifically for VBAC (P12, Nurse Midwife, 10 year experience)."

Participants noted that hospital policies often favour elective CS over VBAC, with no specific policies or formal guidelines dedicated to managing VBAC. Additionally, they mentioned that SOPs mandate CS for all cases involving previous scars to prioritize safety.

"Here in our protocol, we do not do that thing. We do not have any mother who will come here without labour pain and we tell her we will give her a chance to deliver naturally. Here, any mother with a scar must give birth by operation." (P02, Medical doctor, 4 year experience)

In addition some participants said there are no specific policies prepared for VBAC at the facility.

"To be honest, we currently lack any policy for conducting a trial of labour after cesarean (P13, Obstetrician 11 years experience)."

Participants highlighted that a shortage of staff affects VBAC decisions within healthcare facilities. They mentioned a lack of HCPs available to monitor labour, directly influencing VBAC decision-making. HCPs also noted that increased patient load exacerbates these challenges, straining resources and limiting the feasibility of VBAC as a delivery option.

"You will tell her, 'Mother, if you feel the baby has reduced movement, please let me know! If you feel pain around the scar area, inform me.' So, in things like these, you find yourself telling another mother to assist you in monitoring because sometimes the staff may be few, even though patients requiring close monitoring are there. There are

20 patients and only two nurses, so effective close monitoring often becomes impossible." (P11, Nurse Midwife, 7 year experience)

Additionally, one participant mentioned that staffing shortages result in heavy workloads and an inability to properly monitor patients.

"Ehee, maybe sometimes there is a shortage. You may find that there are many patients and you are only two (midwives), so among those two, it's not just your task alone to deliver babies. The workload is heavy. You have to do this here, you have to do that there, you're racing against time, you're racing against time, so starting to assess the mother every half hour, every half hour, and sometimes you find yourself maybe slipping, not doing it." (P12, Nurse Midwife, 10 years experience)

c) **Interpersonal Related Barriers**

Most participants reported minimal agreement in team decisions and a lack of cooperation between HCPs as barriers hindering VBAC efforts. Healthcare providers emphasized that this lack of cooperation among HCPs and with hospital leaders tends to obstruct the consideration of VBAC for pregnant women.

"Because sometimes we have mothers who come here after having had a cesarean section. You find maybe she is six centimetres dilated, and we discuss, 'Let's allow her to deliver naturally.' It will happen just somewhere you are told if they find you have tried, if any challenges occur, it is up to you."(P01, Medical doctor,3 year experience)

Moreover, HCPs said differing viewpoints among team members on how to manage pregnant women with a previous CS hinder VBAC attempts. HCPs mentioned lack of consensus and team decision-making reduces confidence in pursuing VBAC.

"... because a midwife might decide that this woman can deliver naturally when it comes to the doctor's side, he opposes as usual as I told you, so you find there is a conflict between the midwife and the doctor, and if complications arise, you will give explanations, it is easy for you to see he tells me I suggested something, you suggested something". (P10, Nurse Midwife, 11 yeaar experience)

c) Patient-Related Barriers

Participants said the use of traditional medicine by pregnant women to induce or stimulate labour hinders VBAC. HCPs reported concerns about the use of local herbs to induce or stimulate labour, citing potential interference with VBAC. HCPs said the use of traditional medicine creates uncertainties in VBAC trials, as they seek to ensure safe and predictable outcomes for both mother and baby.

".....Because some forcefully use traditional medicines and come here when the baby is already exhausted. So, you find yourself making those decisions quickly because the baby is lacking what? The heartbeat is decreasing, and eventually, you have to make those decisions." (P10, Nurse Midwife, 11 year experience)

4.6 Theme 4: Recommendations to improve VBAC uptake by HCPs

To enhance VBAC acceptance among healthcare providers, Participants were asked for suggestions to improve the VBAC uptake. Five sub-themes emerged a) Availability of Active Guidelines and Policies Emphasizing Utilization of VBAC b) Offering On-the-Job Training on VBAC, c) Enhancing Staffing and Motivation for Effective VBAC Management d) Empowering Mothers and the Community through Comprehensive Education on VBAC and e) Hospital Administration Should Enhance Effective Interdisciplinary Teamwork for VBAC

a) Availability of Active Guidelines and Policies Emphasizing Utilization of VBAC

When participants were asked for their views on improving recommendations for HCPs to support VBAC practice, they emphasized the importance of developing new policies, SOPs, and guidelines specifically tailored for VBAC.

"My advice is that we should establish SOPs to follow standards, where if you encounter a situation, you know exactly what steps to take. I think it would greatly assist us because having SOPs is like having a guide. If anyone deviates from the SOP,

you can remind them that 'here we agreed to do it this way, why did you do it differently'?" (P12 Nurse Midwife, 10 yeqrs experience,).

Additionally, HCPs recommended developing new policies in relevant departments to improve VBAC performance.

"Regarding policy, I believe that, as I mentioned, the hospital and the relevant department (OBGY) should develop new policies. People should sit down and understand the importance of revising these policies". (P01, Medical doctor 3 year experience)

b) Offer On-the-Job Training on VBAC

Participants recommended enhancing VBAC management through targeted staff training and education initiatives. They emphasized the importance of on-the-job training to educate HCPs about the advantages and disadvantages of VBAC, build confidence, address fears, and foster a culture of learning and sharing. HCPs said these training programs should focus on enhancing competence in VBAC monitoring, timely referrals, and improving documentation practices regarding previous CS.

"On-the-job training should be ongoing. It will help us and those who come after us. Because as we continue with these previous scars, first, we are giving ourselves a lot of work; there are many patients, and monitoring becomes difficult. Also, there are many patients who have had cesarean complications. Treating these complications is challenging. So, if they build our capacity, I am sure we can make a difference." (P15, Obstetrician, 7 years of experience)

In addition, HCPs also suggested training sessions for VBAC to build confidence and alleviate fear among the healthcare team.

"Going to those VBAC trainings, because when we attend those trainings, we will be encouraged and our worries will be alleviated that it is something achievable because many of us here are afraid to do it due to the risks associated with attempting vaginal

delivery. Many fear that the uterus might rupture, so if we attend that education, if we are educated on how to screen mothers, how to assess their criteria whether they have them or not, it will help us". (P02, Medical doctor 4 year experience)

c) E**nhancing Staffing for Effective VBAC Management**

Healthcare providers recommended the government to increase the number of competent staffing levels for the effective management of VBAC. Participants emphasized that adequate staffing levels are essential to support continuous monitoring and timely interventions during VBAC procedures.

"Firstly, there should be adequate staffing, such as doctors, registrars, specialists like gynaecologists, and sufficient nursing staff, because mothers require high-quality care and monitoring". (P04, Nurse Midwife, 4 years experience)

d) Empowering Mothers and Community through Comprehensive Education on VBAC

Participants suggested the importance of informing mothers about the reasons for previous CS, educating them about the benefits of VBAC, and advising pregnant women to avoid local herbs. They stressed the need for proper examination and triage at Reproductive and Child Health clinics.

"The community should also be educated, starting from the clinics, that there are mothers who can give birth naturally even if they have undergone surgery. Therefore, education should start from the clinics, people should be educated, and thorough examinations should be conducted, so triage is done there where people are sorted out there". (P14, Nurse Midwife,15 year experience)

Healthcare providers (HCPs) highlighted that educating women about VBAC should be done using friendly health education and communication methods, in simple language, to increase awareness and encourage acceptance of VBAC as a safe and viable option for eligible women

"I think our way of communicating doesn't allow them to sit, reflect, and make informed decisions. You might find that the information we give them is too

frightening, to the point where they don't accept it".(P09,Obstetrician,12 years experience)

e) Hospital Administration Should Enhance Effective Interdisciplinary Teamwork for VBAC

Participants suggested the importance of forming cohesive teams and highlighted the need for hospital administrations to promote effective interdisciplinary teamwork for VBAC management. They underscored the significance of enhancing communication and ensuring timely decision-making during VBAC procedures.

As a good team, it becomes teamwork, so it fights together, and the theatre is ready. So if we enter into that system, we can be motivated, but unlike doing it individually as a nurse or doctor, where you work alone and if you encounter a complication, it's yours. But if you work as a team, discuss and see that this mother meets all the criteria, and everyone agrees that she meets all the criteria, and the mother herself demands it, then you can go far. (P07, Medical doctor, s4 year experience)

HCPs highlighted the collaboration among specialists, junior staff, and support personnel to streamline care pathways.

"……..and our specialist leaders could try to be with us in the area where we want to try." (P01, Medical doctor, 3 year experience)

CHAPTER FIVE

5.0 DISCUSSION

5.1 Discussion

This study aimed to explore HCPs' perspectives on VBAC at Mwananyamala Hospital in Dar es Salaam, Tanzania. Specifically, the study aimed to assess healthcare providers' comprehension of VBAC, explore the factors facilitating their involvement, uncover barriers discouraging VBAC recommendation, and gather their suggestions for enhancing VBAC practices at Mwananyamala Hospital in Dar es Salaam, Tanzania.

The study revealed that participants possessed sufficient understanding about VBAC. Furthermore, the study revealed that HCPs had a comprehensive understanding of the key criteria for evaluating the suitability of pregnant women for a VBAC trial. Participants consistently emphasized the importance of understanding the reason for the prior CS, conducting a thorough review of the patient's medical history, and considering the interval between pregnancies. These findings are consistent with the study by Lundgren et al. (2016), which emphasized the importance of thoroughly assessing both past obstetric history and present obstetric conditions [19]. Such thorough evaluation ensures VBAC is recommended appropriately, maximizing safety and efficacy. HCPs recognized that, while VBAC is not universally suitable, careful selection can enhance positive outcomes and promote its benefits as a viable option for eligible women.

This study found that HCPs demonstrated sufficient understanding about the potential risks associated with VBAC trials. The majority of participants identified uterine rupture as the primary risk, underscoring the critical awareness among HCPs about this serious complication. Additionally, several participants highlighted severe PPH as another substantial risk. These findings are consistent with prior research conducted by Lundgren et al. (2016) in countries with high VBAC rates and by Firoozi et al. (2020) in Iran, both of which also highlighted uterine rupture as a significant risk associated with VBAC attempts [2, 19]. Although different studies align with our findings, the risks at Mwananyamala Hospital and similar settings in Tanzania may be elevated due to limited resources, staffing shortages, and inadequate emergency care access,

potentially worsening complications compared to better-equipped facilities. The consistency across these studies highlights the global recognition of uterine rupture as a significant concern in VBAC trials and reinforcing the need for careful risk assessment and management in such settings.

In this study, the availability of staff with VBAC management skills emerged as a crucial facilitator in the successful implementation of VBAC. Skilled personnel are essential for the safe management of VBAC trials, as they possess the expertise to monitor labour, recognize early signs of complications, and respond promptly to emergencies such as uterine rupture or severe PPH. Their presence enhances patient safety and boosts confidence among HCPs and patients in opting for VBAC. This finding is in line with studies conducted globally, which argue that appropriate staffing of birthing suites with personnel possessing relevant expertise is essential for safe and effective VBAC management [19, 60, 61]. The uniformity noted in these studies underscores the global necessity for adequate staffing with specialized training and maintaining readiness at all times, thereby enhancing VBAC outcomes.

The study highlights that HCPs often lean towards VBAC decision-making and interventions during advanced labour stages, particularly when encountering pregnant women with prior CS who present with cervical dilation of seven centimetres or more. This aligns with findings from other studies indicating a preference for VBAC when cervical dilation reaches or exceeds 4 cm [15, 60, 62]. However, this approach can unintentionally endanger pregnant women. Many women with previous CS delay seeking healthcare until they are in the advanced stages of labour to avoid immediate recommendations for another CS if they arrive earlier without sufficient cervical dilation [63]. This delay in seeking care can compromise maternal and fetal health outcomes by delaying access to timely medical interventions and increasing the risk of complications related to prolonged labour. It underscores the importance of making informed decisions in VBAC management, prioritizing maternal and fetal safety while effectively addressing individual patient preferences and needs.

The study revealed that the preparedness and collaborative efforts of interdisciplinary teams significantly facilitate HCPs in recommending and managing trials of VBAC for pregnant women. Integrating diverse expertise and seamless teamwork enhances the

confidence of HCPs, ensuring a comprehensive and supportive environment conducive to successful VBAC outcomes. These findings align with a study conducted by Kumari et al. (2021) in a private hospital in India [64] and another study by Yazdizadeh et al. in Iran [65], both of which highlighted the critical role of interdisciplinary coordination and teamwork in improving the success rates and safety of VBAC procedures. This evidence underscores the importance of fostering a well-prepared and cohesive healthcare team to optimize patient care and outcomes in VBAC management.

The study found that participants experienced significant fear related to complications associated with VBAC, such as uterine rupture, and fear of legal responsibility. These concerns emerged as substantial barriers to supporting pregnant women undergoing VBAC. These findings are consistent with several other studies [2, 19, 52, 66, 67], which also indicated fear of complications that may arise from VBAC trials as a major barrier to recommending and supporting VBAC. The persistent anxiety surrounding potential medical complications and the associated legal ramifications underscores the need for targeted strategies to address these fears, ensuring that HCPs can offer balanced and informed support for VBAC.

The findings of this study indicate that a lack of effective teamwork among HCPs is a significant barrier to managing pregnant women undergoing VBAC. This aligns with previous research conducted in Iran by Firoozi et al. (2020), which highlighted an unsupportive birth team as a major obstacle to the successful implementation of VBAC trials [67]. The findings indicate that insufficient collaboration among HCPs leads to inconsistent advice, conflicting recommendations, and reduced patient trust in the VBAC process. Traditional hierarchical structures in healthcare settings can inhibit open communication and collaboration, discouraging junior staff and others with less authority from expressing concerns or suggestions, which further undermines teamwork effectiveness [68]. Poor communication within healthcare teams can lead to misunderstandings and inefficiencies. In a context where resources are limited, effective communication is essential for ensuring that all team members are aligned in their efforts to provide patient care [69]. Therefore, cultivating a supportive and cooperative environment among HCP teams is critical to overcoming challenges and

improving the management of VBAC, ultimately resulting in better maternal outcomes and higher levels of patient satisfaction.

Based on this study, staff shortages emerge as a critical barrier in managing pregnant women undergoing VBAC. Our findings underscore that limited staffing can lead to increased workload, compromised patient monitoring, and delayed decision-making, all contributing to suboptimal VBAC management outcomes. This aligns with research by Wanyonyi et al. in East Africa and Firoozi et al. in Iran [52, 67], both highlighting staffing shortages as a significant challenge in VBAC trial management. Staff shortages in Tanzania's healthcare system arise from a combination of factors that severely impede patient care. A critical shortage of skilled HCPs, especially in rural areas, leads to overburdened staff and a decline in care quality; notably, only 9% of doctors are available to serve 28% of the population [70, 71]. This disparity is further exacerbated by the ongoing "brain drain," as healthcare professionals migrate abroad for better wages and working conditions, leaving the remaining workforce overwhelmed and demoralized [70]. Such conditions not only compromise the delivery of healthcare services but also create a cycle of attrition that undermines the stability of the healthcare system. These findings emphasize that addressing these shortages requires systemic reforms aimed at improving working conditions and incentives for HCPs, alongside initiatives to retain talent within the country. Without such interventions, the gap in healthcare delivery will likely widen, particularly for vulnerable populations who rely heavily on accessible and quality care.

HCPs recommend offering on-the-job training on VBAC to improve management and outcomes. This training equips staff with the latest evidence-based practices, enhances their skills in managing VBAC cases, and ensures they are prepared to handle potential complications. These findings are congruent with other studies that emphasize the necessity of tailored training for HCPs to enhance VBAC management [52, 67]. Tailored training programs improve HCPs' competence and confidence, leading to better patient outcomes and increased safety during VBAC procedures. By implementing focused training initiatives, healthcare facilities can foster a knowledgeable and skilled workforce capable of delivering high-quality, patient-centered care for women considering VBAC.

HCPs emphasize enhancing staffing and motivation as crucial for effective VBAC management. Adequate staffing ensures continuous monitoring, timely decision-making, and comprehensive patient care, reducing labour and delivery risks. These findings align with a study by Wanyonyi et al. in East Africa, where HCPs highlighted the necessity of adequate staffing for proper VBAC management [52]. Such efforts create a supportive environment that improves maternal outcomes and patient satisfaction, ensuring VBAC remains a safe option for women with prior CS.

One of the key recommendations from HCPs in this study is the empowerment of mothers and communities through comprehensive education on VBAC. It was suggested that pregnant women with a previous CS should be informed about the reasons for their prior CS, whether absolute or relative indications and the possibility of VBAC in subsequent pregnancies. This education should be tailored and delivered during antenatal care visits, particularly at reproductive and child health clinics. This finding aligns with other studies [2, 65, 66, 72, 73] emphasizing the need for targeted educational interventions for women (providing information on the risks and benefits of both vaginal delivery and CS), preserving women's dignity and enhancing interactions.

Participants recommend that hospital administration enhance interdisciplinary teamwork for managing VBAC. Effective teamwork among HCPs, including obstetricians, midwives, anaesthetists, nurses, and support staff, is crucial for VBAC safety and success. Several studies support this [2, 4, 19, 65, 67, 73, 74], highlighting that interdisciplinary teamwork in maternity care improves communication, decision-making, and patient outcomes. Enhancing teamwork includes regular meetings, collaborative training, and clear communication. Hospitals should establish protocols for collaboration and role clarity.

5.2 Study Limitations and Mitigation

This study recognized inherent limitations and adopted methodologies to enhance the reliability of its findings. A significant concern was the potential for social desirability bias. To mitigate this, strategies such as ensuring a secure interview environment, maintaining confidentiality, and encouraging candid responses were implemented. These measures aimed to strengthen the study's validity, credibility, and relevance,

particularly in understanding HCPs' perceived barriers to VBAC at Mwananyamala Hospital. Another limitation was the lack of generalizability due to the study's small scale and single-hospital focus at Mwananyamal Regional Referral Hospital in Tanzania. To address this, the researcher recruited key informants who could offer critical insights, thereby suggesting nearly generalized findings to answer the research question effectively.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATION

6.1 Conclusion

HCPs demonstrated understanding of VBAC criteria and risks, highlighting the importance of thorough patient evaluation for safe and effective outcomes. However, several individual, interpersonal, facility facilitators and barriers to VBAC implementation were identified. Recommendations included enhancing teamwork through regular meetings and training, clear communication, defined roles, addressing staffing shortages, and providing ongoing training. These strategies aim to improve VBAC outcomes and maternal health.

The study's implications extend beyond Mwananyamala Hospital, highlighting universal challenges in VBAC implementation and the need for tailored interventions. Future research should focus on implementing and evaluating these recommendations to refine VBAC practices.

6.2 Recommendation

Healthcare management should organize regular team meetings and training for obstetricians, midwives, anaesthetists, and support staff to enhance communication and teamwork in VBAC management. The Ministry of Health and hospitals must address staffing shortages by recruiting skilled personnel with VBAC expertise, offering competitive salaries, and providing professional development. National health authorities and obstetric experts should implement evidence-based VBAC guidelines, covering patient selection, labour monitoring, and complication management, with proper staff training. Additionally, obstetricians and midwives should assess VBAC eligibility early in labour, while hospital quality teams audit practice adherence to improve outcomes**.**

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8.0 Appendices

8.1 Appendix I: Interview Guide (English version)

Title: Healthcare Providers' Perspectives on Vaginal Birth after Caesarean Section at Mwananyamala Hospital in Dar Es Salaam, Tanzania

Basic Information about the Interview:

Thank you for your participation in this significant interview. Your insights are invaluable as we endeavour to deepen our understanding of healthcare providers' perspectives on VBAC at Mwananyamala Hospital in Dar es Salaam, Tanzania. Your experiences and viewpoints are crucial in shedding light on the complexities surrounding VBAC within the healthcare landscape. Today's conversation will contribute significantly to advancing our knowledge and enhancing the quality of maternal healthcare practices. Your thoughtful reflections will undoubtedly contribute to the ongoing efforts aimed at improving healthcare delivery, particularly in the context of maternal and reproductive health.

Purpose of the Interview: To explore and comprehend the perspectives of healthcare providers regarding VBAC at Mwananyamala Hospital. Within this context, the objectives include articulating healthcare providers' understanding of VBAC, shedding light on the factors that serve as facilitators influencing the decision to opt for VBAC in pregnant women, pinpointing the challenges faced by healthcare providers in advocating for VBAC and outlining the recommendations proposed by them to amplify the acceptance and implementation of VBAC. Through these objectives, we aim to gain a comprehensive insight into the complex dynamics surrounding VBAC within the healthcare provider community at Mwananyamala Hospital.

Time of Interview:

Date:

Name of Interviewer:

IDI Number:

Recording and Storing Information

This interview will be audio-recorded for research purposes. All information collected will be stored securely on a computer accessible only with a password, limited to the project coordinator.

Introduction

1. Introduce Yourself: Provide your name, role, and affiliation with the study.

2. Explain the Purpose of the study: Clarify that the interview focuses on healthcare Provider's perceptions of VBAC at Mwananyamala Hospital.

3. Obtain Informed Consent: Request the interviewee's signature on the informed consent form.

4. Describe the Interview Structure: Outline the interview format, including audio recording, taking notes and assure confidentiality and anonymity.

5. Ask for Questions: Invite the interviewee to ask any questions or seek clarification.

Interview content questions:

1. I would like to start by asking you some general demographic data. Is that ok? Could you briefly tell me a little bit about yourself?

Demographic Information of the study participant

Participant	Age	Gender	Level Education of (Diploma,- Degree, Master's Degree, PhD)	Professional qualifications (Medical Doctor, Midwife)	Number of years working at Mwananyamala Hospital (Labour ward)	Training or workshops attended related to VBAC
P1						
P2						
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P20						

2. Could you please explain to us what you know about Vaginal Birth After Caesarian section (VBAC)?
    a) *Probe:* What are the factors that you consider before subjecting pregnant women to VBAC?
    b) *Probe*: What are the benefits of subjecting pregnant women to VBAC?
    c) *Probe*: What are the risks associated with VBAC as compared with caesarian section?
3. Kindly share your overall perspectives regarding the practice of VBAC for women with Previous scars.
    a) *Probe*: Why do you hold these particular perceptions on VBAC?
    b) *Probe:* What are the factors or considerations that contribute to your viewpoint?
    c) *Probe:* Are there any memorable experiences or cases related to VBAC that have influenced your perceptions?
4. Please, tell us the factors that contribute to healthcare providers being more inclined to subject a pregnant woman to VBAC?
    a) *Probe:* Can you tell us the specific medical factors or conditions that healthcare providers commonly consider as facilitators when deciding to recommend VBAC for a pregnant woman?
    b) *Probe:* What factors prevent HCPs from practicing VBAC? (Individual, Organizational, policy, community).
    c) *Probe:* What should be done to ensure VBAC is often practiced (Availability of CPD training)?
    d) *Probe:* Can you explain the kind of training you ever received to enable you to conduct VBAC? how beneficial was it?

e) *Probe:* Can you provide examples of how education has positively impacted decision-making on VBAC?

f) *Probe:* Are there any institutional policies or support systems that you perceive as facilitators or barriers to promoting/practicing VBAC among healthcare providers?

5. In your opinion, how can healthcare providers better promote VBAC practice? Would you recommend its practice?
   a) *Probe*: If yes why do you recommend it?
   b) *Probe:* If no what would you recommend or like to see implemented as a more effective approach?
6. SUMMARY (Interviewer summarizes the discussion)

Your substantial contribution to this research is genuinely appreciated. The insights you have provided are expected to have a meaningful influence on furthering the comprehension and application of VBAC in the context of Tanzania.

8.2 Appendix II: Interview Guide (Swahili version))

Mada: Mtazamo wa Watoa Huduma za Afya Kuhusu Kujifungua kwa Kawaida Baada ya Upasuaji wa Uzazi uliopita kwenye Hospitali ya Mwananyamala, Dar es Salaam, Tanzania

Taarifa za awali za mahojiano:

Asante kwa ushiriki wako katika mahojiano haya muhimu. Mchango wako ni wa thamani tunapojitahidi kuelewa mtazamo wa wataalamu wa afya ya uzazi wa wanawake kuhusu kujifungua kwa kawaida baada ya upasuaji wa uzazi uliopita katika Hospitali ya Mwananyamala, Dar es Salaam, Tanzania. Uzoefu na maoni yako ni muhimu sana katika kufahamu kuhusu mtazamo wa hali ya kujifungua kwa kawaida baada ya upasuaji uliopita kwa watoa huduma za afya. Mazungumzo ya leo yatachangia sana katika kuongeza maarifa yetu na kuboresha ubora wa huduma za afya ya uzazi. Fikira zako za kina bila shaka zitachangia kwa kiasi kikubwa katika juhudi zinazoendelea za kuboresha utoaji wa huduma za afya, hasa katika muktadha wa afya ya uzazi wa akina mama na watoto.

Lengo la mahojiano: Kuchunguza na kuelewa mitazamo ya wataalamu wa afya ya uzazi wa wanawake kuhusu kujifungua kwa kawaida baada ya upasuaji wa uzazi uliopita katika Hospitali ya Mwananyamala. Katika muktadha huu, malengo ni kufahamu mtazamo na uelewa wa wataalamu wa afya ya uzazi wa wanawake kuhusu kujifungua kwa kawaida, kutoa mwanga juu ya mambo yanayosaidia katika uamuzi wa kuchagua kujifungua kwa kawaida kwa wanawake wajawazito, kubainisha changamoto wanazokutana nazo wataalamu wa afya ya uzazi ya wanawake wanapotoa huduma ya kujifungua kwa kawaida, na kutaja mapendekezo wanayoyatoa ili kuongeza kukubalika na utekelezaji wa kujifungua kwa kawaida baada ya upasuaji uliopita. Kupitia malengo haya, tunalenga kupata ufahamu wa kina juu ya mtiririko wa mambo ndani ya jamii ya wataalamu wa afya ya uzazi wa wanawake katika Hospitali ya Mwananyamala.

Muda wa mahojiano:

Tarehe:

Jina la Mhojaji:

Namba ya mahojiano:

Kurekodi na Kuhifadhi Taarifa

Mahojiano haya yatarekodiwa kwa sauti kwa madhumuni ya utafiti. Taarifa zote zilizokusanywa zitahifadhiwa salama kwenye kompyuta inayoweza kufikiwa kwa nywila, ikifikiwa na mratibu wa tafiti pekee.

Utangulizi

1. Jitambulishe: Taja jina lako, jukumu lako, na uhusiano wako na utafiti huu.
2. Eleza Lengo la Utafiti: Elezea kwamba mahojiano yanazingatia mtazamo wa wataalamu
   wa afya ya uzazi wa wanawake kuhusu kujifungua kwa kawaida baada ya upasuaji
   uliopita katika Hospitali ya Mwananyamala.
3. Pata Kibali Kilichoridhiwa: Omba saini ya mahojiano kwenye fomu ya ridhaa.
4. Eleza Muundo wa Mahojiano: Elezea muundo wa mahojiano, ikiwa ni pamoja na rekodi ya sauti, kuchukua maelezo na uhakikishie usiri na kutotambulika kwa mshiriki.
5. Uliza Maswali: Wahimize washiriki kuuliza maswali au kuomba ufafanuzi wowote pindi utakapohitajika.

Maswali yaliyomo kwenye mahojiano:

1. Ningependa kuanza kwa kukuuliza baadhi ya maswali ya jumla . Je, uko tayari? Je, unaweza kuniambia kwa ufupi kidogo kuhusu;

Mshiriki	Umri	Jinsia	Kiwango ya elimu (Stashahada, Shahada, Uzamili, Uzamivu)	Sifa ya kitaalum a (Daktari, Mkunga)	Idadi ya miaka ya kufanya kazi katika Hospitali ya Mwananyamala (Wodi ya Kujifungua)	Mafunzo yaliyohudhuriwa kuhusiana na VBAC (Ndio/Hapana)
P1						
P2						
P3						
P4						
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2. Unaweza kutufafanulia kile unachokijua kuhusu Kujifungua kwa njia ya kawaida Baada ya upasuaji?

    a) *Dadisi* : Je, ni mambo gani unayozingatia kabla ya kuruhusu wanawake

wajawazito kujifungua kwa njia ya kawaida baada ya upasuaji?

b) *Dadisi* : Je, kuna faida gani kwa mwanake kujifungua kwa njia ya kawaida baada ya upasuaji?

c) *Dadisi* : Je kuna madhara gani kwa mwanamke kujifungua kwa njia ya kawaida baada ya upasuaji ukilinganisha na kufanyiwa upasuaji wa marudio?

3. Tafadhali tueleze mtizamo wako kwa ujumla kuhusu huduma ya kujifungua kawaida baada ya upasuaji uliopita kwa wanawake walio na kovu la awali?

a) *Dadisi*: Kwanini una mtizamo huu kuhusu kujifungua kawaida baada ya upasuaji uliopita?

b) *Dadisi*: Tafadhali eleza mambo au mazingira yanayochangia maoni yako.

c) *Dadisi:* Tafadhali, tushirikishe uzoefu au kesi zozote za kumbukumbu yako zinazohusiana na kujifungua kawaida baada ya upasuaji uliopita ambazo zimeathiri maoni yako.

4. Tafadhali, tueleze mambo yanayochangia watoa huduma za afya kuwa na mwelekeo zaidi wa kutekeleza zoezi la kujifungua kawaida baada ya upasuaji uliopita kwa wanawake wajawazito?

a) *Dadisi* : Je, unaweza kutuambia hali au vigezo vya kitabibu ambavyo wataalam wa afya ya uzazi mara nyingi wanachukulia kama mambo yanayofanikisha kujifungua kawaida baada ya upasuaji uliopita kwa mwanamke mjamzito?

b) *Dadisi*: Ni mambo gani yanazuia wataalamu wa afya ya uzazi kutekeleza zoezi la kujifungua kawaida baada ya upasuaji uliopita? (Binafsi, Taasisi, Sera, Jamii).

c) *Dadisi*: Ni nini kinachopaswa kufanyika ili kuhakikisha kujifungua kawaida baada ya upasuaji uliopita inatekelezwa mara nyingi? (Upatikanaji wa mafunzo ya CPD).

d) *Dadisi*: Je unaweza kuelezea kuhusu aina ya mafunzo ambayo umewahi

kupokea ili kukuwezesha kufanikisha kujifungua kawaida baada ya upasuaji uliopita kwa mwanamke mjamzito. Ilikuwa na manufaa kiasi gani?

e) *Dadisi*: Je, unaweza kutoa mifano ya jinsi elimu imeathiri vipi ufanyaji maamuzi kuhusu kujifungua kwa njia ya kawaida baada ya upasuaji kwa wanawake wajawazito?

f) *Dadisi*: Je, kuna sera au mifumo ya msaada ambayo unafikiri inaweza kuwa kichocheo au kizuizi kwa kukuza/kutekeleza kujifungua kawaida baada ya upasuaji uliopita miongoni mwa wataalamu wa afya ya uzazi?

5. Kwa maoni yako, ni kwa namna gani watalam wa afya ya uzazi wanaweza kuongeza uboreshaji wa kujifungua kawaida baada ya upasuaji uliopita miongoni wanawake wajawazito? Ungependa kuipendekeza hii huduma?
   a) *Dadisi*: Ikiwa ndio kwa nini unapendekeza?
   b) *Dadisi*: Ikiwa hapana, ni nini ungependekeza au ungependa kuona kikitekelezwa kama njia bora zaidi?

6. MUHTASARI (Mhojaji atoa muhtasari wa majadiliano)

Mchango wako muhimu katika utafiti huu ni wa thamani sana. Ujuzi uliotolewa unatarajiwa kuwa na athari chanya inayofaa kwa kuelewa mtazamo wa kujifungua kawaida baada ya upasuaji uliopita katika muktadha wa Tanzania.

8.3 Appendix III: Consent form (English version)

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES (MUHAS)
DIRECTORATE OF RESEARCH AND PUBLICATIONS

ID. NO ☐

Consent Form for Participating in a Research Study

My name is Ms. Salome Mlabwa, and I am currently pursuing my MSc in Midwifery and Women's Health at the Muhimbili University of Health and Allied Sciences (MUHAS) in School of Nursing. I am researching, "Healthcare Providers' Perspectives on Vaginal Birth after Caesarean Section at Mwananyamala Hospital in Dar Es Salaam, Tanzania."

The aim of the Study

This study aims to explore and understand the perspectives of healthcare providers regarding Vaginal Birth after Caesarean Section (VBAC) at Mwananyamala Hospital. The results of this study will offer valuable insights into how to enhance the services offered to women undergoing vaginal birth after caesarian section.

Procedure

If you choose to participate, I will conduct an in-depth interview with you to gather insights into your perceptions on VBAC. The interview is expected to take approximately 40 minutes, and will be audio recorded in order not to miss any information and the researcher can't be quick enough to write everything you say. There will be no cost involved for your participation.

Confidentiality: Please be assured that all information collected during the study will be treated with utmost confidentiality. This means that your responses will only be used for research and shared with MUHAS when necessary. I will ensure that any information included in my report does not identify you as the respondent. No names will be included both during the interview and reporting findings.

Right to refuse or withdraw
Your participation is entirely voluntary, and you have the right to withdraw from the study at any time without facing any negative consequences or penalties. Your decision will not impact any entitled benefits. However I would like to encourage you to take part in this study because your perspectives are very crucial.

Benefits
By participating in this study, you contribute to advancing medical knowledge and improving healthcare for pregnant women and newborns in Tanzania. Additionally, you become an integral part of an academic research project, contributing to a better understanding of healthcare issues.

Risks
There are no anticipated risks associated with participating in this study.

Whom to Contact
Should you have any questions or concerns about the study, feel free to contact me, Ms. Salome Mlabwa, from MUHAS, P. O. BOX 65001, Dar es Salaam at +255783872865 or via email at salomemlabwa85@gmail.com. If you ever have questions about your rights as a participant, you may contact the Director of Research and Publications, at MUHAS. P.O. Box 65001, Dar es Salaam-Tanzania.

Signature
Do you agree to participate? Put a tick in the appropriate box
Participant agrees ☐

Participant does NOT ☐ agree

I, ……... have read the contents of this form and understood. My questions have been answered; I agree to participate in this study.
Signature of participant…….
Date…….
Signature of researcher ……. Date…….

8.4 Appendix IV: Consent form (Swahili Version)

CHUO KIKUU CHA AFYA NA SAYANSI SHIRIKISHI MUHIMBILI

KURUGENZI YA UTAFITI NA MACHAPISHO

Namba ya utambulisho

Fomu ya Ridhaa ya Kushiriki Katika Utafiti

Jina langu ni Bi. Salome Mlabwa, kwa sasa, ninasomea shahada ya uzamili katika Ukunga na Afya ya Wanawake katika Chuo Kikuu cha Afya na Sayansi Muhimbili, katika Shule ya Uuguzi. Nawasiliana nawe kama sehemu ya utafiti wangu uitwao "Mitazamo ya Watoa Huduma za Afya kuhusu Kujifungua kwa njia ya kawaida baada ya Upasuaji wa uzazi uliopita katika Hospitali ya Mwananyamala, Dar es Salaam, Tanzania."

Malengo ya Utafiti

Ninalenga kuchunguza na kuelewa mitazamo ya watoa huduma za afya kuhusu kujifungua kwa njia ya kawaida baada ya upasuaji wa uzazi uliopita katika Hospitali ya Mwananyamala.

Matokeo ya utafiti huu yatachangia katika uboreshaji huduma zinazotolewa kwa wanawake wanaojifungua kwa njia ya kawaida baa ya upasuaji.

Taratibu

Ikiwa utachagua kushiriki, nitafanya mahojiano ya kina nawe ili kupata ufahamu wa mitazamo yako kuhusu Kujifungua kwa njia ya kawaida baada ya Upasuaji wa uzazi uliopita. Mahojiano yanatarajiwa kuchukua takriban dakika 40. Majadiliano haya yatarekodiwa kusudi nisikose taarifa yoyote kwa maana sitaweza kuandika kila kitu unachosema kwa haraka na hakutakuwa na gharama zozote kwa ushiriki wako.

Usiri

Nakuhakikishia kuwa habari zote zitakazokusanywa wakati wa utafiti huu zitachukuliwa kwa usiri mkubwa. hii inamaana kwamba majibu yako yatatumiwa na mtafiti
kwa lengo la utafiti huu tu na kama kunaulazima yatatumiwa na Chuo Kikuu Muhimbili. Majina hayatakuwa sehemu ya rekodi yoyote sehemu yoyote.

Hatari

Hakuna hatari zinazotarajiwa kuhusiana na kushiriki katika utafiti huu.

Haki ya kukataa au Kujitoa

Ushiriki wako ni wa hiari kabisa, na una haki ya kujitoa wakati wowote bila kufuatiliwa na madhara au adhabu yoyote. Uamuzi wako hautaathiri faida zozote unazostahili. Hata hivyo ningependa kukuhimiza ushiriki wako katika utafiti huu kwani mtazamo wako ni muhimu sana katika utafiti huu.

Faida

Kwa kushiriki katika utafiti huu, unachangia katika kukuza maarifa ya kitabibu na kuboresha huduma za afya kwa wanawake wajawazito na watoto wachanga nchini Tanzania. Aidha, unakuwa sehemu muhimu ya mradi wa utafiti wa kisayansi, ukichangia kwenye uelewa bora wa masuala ya afya.

Taarifa za Mawasiliano

Ikiwa una maswali au wasiwasi wowote kuhusu utafiti, tafadhali wasiliana nami, Bi. Salome Mlabwa, kutoka Chuo Kikuu cha Afya na Sayansi shirikishi Muhimbili, S.L.P. 65001, Dar es Salaam au kwa simu namba +255783872865 au kupitia barua pepe kwa salomemlabwa85@gmail.com

Sahihi

Je, Unakubali kushiriki? Weka alama ya tiki (√) katika kisanduku husika.

☐ Ndiyo

☐ Hapana

Mimi…….....……nimesoma fomu hii ya ridhaa na nimeielewa. Maswali yangu yamejibiwa. Nakubali kushiriki katika utafiti huu.

Saini ya mshiriki…… Tarehe……

Saini ya mtafiti …… Tarehe……

8.5 Appendix V: Ethical Clearance

UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

OFFICE OF THE DIRECTOR – RESEARCH, PUBLICATIONS AND INNOVATIONS

Ref. No.DA.282/298/01.C/2174 Date: 22/04/2024

MUHAS-REC-04-2024-2174
SALOME OSWARD MLABWA
SHOOL OF NURSING
MUHAS

RE: APPROVAL FOR ETHICAL CLEARANCE FOR A STUDY TITLED: HEALTHCARE PROVIDERS' PERCEPTIONS ON VAGINAL BIRTH AFTER CAESAREAN SECTION AT MWANANYAMALA HOSPITAL IN DAR ES SALAAM, TANZANIA.

Reference is made to the above heading,

I am pleased to inform you that the Chairperson has on behalf of the University Senate, approved ethical clearance of the above-mentioned study, on recommendations of the Senate Research and Publications Committee meeting accordance with MUHAS research policy and Tanzania regulations governing human and animal subjects research.

APPROVAL DATE: 22/04/2024
EXPIRATION DATE OF APPROVAL: 22/04/2025

STUDY DESCRIPTION:

Purpose:
To explore the Healthcare Provider's perceptions on Vaginal Birth after Caesarean Section at Mwananyamala Hospital in Dar es Salaam, Tanzania.

The approved protocol and procedures for this study is attached and stamped with this letter, and can be found in the link provided: https://irb.muhas.ac.tz/storage/Certificates/Certificate%20-%2015380.pdf and in the MUHAS archives.

The PI is required to:

1. Submit bi-annual progress reports and final report upon completion of the study.
2. Report to the IRB any unanticipated problem involving risks to subjects or others including adverse events where applicable.
3. Apply for renewal of approval of ethical clearance one (1) month prior its expiration if the study is not completed at the end of this ethical approval. You may not continue with any research activity beyond the expiration date without the approval of the IRB. Failure to receive approval for continuation before the expiration date will result in automatic termination of the approval for this study on the expiration date.
4. Obtain IRB amendment (s) approval for any changes to any aspect of this study before they can be implemented.
5. Data security is ultimately the responsibility of the investigator.
6. Apply for and obtain Data Transfer Agreement (DTA) from NIMR if data will be transferred to a foreign country.
7. Apply for and obtain Material Transfer Agreement (MTA) from NIMR, if research materials (samples) will be shipped to a foreign country.
8. Apply for and obtain permission to publish the results from National Institute for Medical Research. The application should be before submitting to a publisher and not concurrently through the email publications@nimr.or.tz.
9. Any researcher, who contravenes or fail to comply with these conditions, shall be guilty of an offence and shall be liable on conviction to a fine as per NIMR Act No. 23 of 1979, PART III section 10 (2)
10. The PI is required to ensure that the findings of the study are disseminated to relevant stake holders.
11. PI is required to be versed with necessary laws and regulatory policies that govern research in Tanzania. Some guidance is available on our website https://drp.muhas.ac.tz/.



Dr. Nahya Salim Masoud,
Chairperson, MUHAS Research and Ethics Committee

8.6 Appendix VI: Introduction letter

UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

OFFICE OF THE DIRECTOR – POSTGRADUATE STUDIES

In reply quote;
Ref. No. HD/MUH/T.435/2022

30th April, 2024

EXECUTIVE DIRECTOR,
MWANANYAMALA REGIONAL REFERRAL HOSPITAL,
P.O. BOX 30041,
DAR ES SALAAM.

RE: INTRODUCTION LETTER OF SALOME OSWARD MLABWA

We would like to inform you that the carrier of this letter is Salome Osward Mlabwa with registration number HD/MUH/T.435/2022 a student in the School of Nursing at Muhimbili University of Health and Allied Science (MUHAS), pursuing MSc Midwifery and Women's Health.

As part of her studies, she will be doing an elective research titled **"HEALTHCARE PROVIDERS' PERCEPTIONS ON VAGINAL BIRTH AFTER CAESAREAN SECTION AT MWANANYAMALA HOSPITAL IN DAR ES SALAAM, TANZANIA".**

The ethical clearance for doing the said research has been given by the University.

Kindly request your assistance and cooperation to our student.

Yours Sincerely,

Ms. Victoria Mwanilwa
For: DIRECTOR, POSTGRADUATE STUDIES

cc: Salome Osward Mlabwa

9 United Nations Road; Upanga West; P.O. Box 65001, Dar Es Salaam: Tel. G/Line: +255-22-2150302/6; Ext. 1015; Direct Line:+255-22-2151378;Telefax:+255-22-2150465;E-mail:dpgs@muhas.ac.tz;Web:https://www.muhas.ac.tz

8.7 Appendix VII: Permission Letter

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF HEALTH

Telephone Address:

Telephone: 022-2760500

Mwananyamala Regional
Referral Hospital,
P.O.Box 61665
Dar es Salaam.

RE: NO.: MA. 239/240/01/86

DATE: 03th May,2024

Director,
Muhimbili University of Health and,
Allied Sciences,
P.O.BOX 65001,
DAR ES SALAAM.

RE: SALOME OSWARD MLABWA - TO CONDUCTI HIS RESEARCH IN MWANANYAMALA REGIONAL REFERRAL HOSPITAL

The captioned subject refers

2. May you be informed that your request to research Titled "***Healthcare Providers; perceptions o vaginal birth after caesarean section at Mwananyamala Hospital in Dar es Salaam, Tanzania***" ***Start*** **to 6th May,2024**, to **6th June,2024** is asserted.

3. The Institution charges **50,000/=**, as Research fee as per student spent. The payments are to be made upon reporting.

4. May she report to the Administration and HR department head for further instruction.

Thanks.

MEDICAL OFFICER INCHARGE
MwananyamalaRegionalReferralHospital
P.O. Box 61665
DAR-ES-SALAAM

Dr. Mkiwa Akida
RESEARCH COORDINATOR
FOR: MEDICAL OFFICER INCHARGE
MWANANYAMALA REGIONAL REFERRAL HOSPITAL

COPY:
Heads of ~~Internal~~ OBGY Department - **MWANANYAMALA REGIONAL REFERRAL HOSPITA**

Salome Osward Mlabwa - **Report to the head of** OBGY **Department**