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Faculty of Health Sciences
School of Health Care Sciences
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BARRIERS AND FACILITATORS ASSOCIATED WITH PARTOGRAPH COMPLETION BY MIDWIVES IN A REFERRAL HOSPITAL IN BOTSWANA

Submitted in fulfilment of the requirements for the degree.

Master of Nursing (Midwifery and Neonatal Nursing)
Health Sciences

by

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DECLARATION

Student Number: 19187875

I, **Margaret Lesego Ontiretse**, student number: 19187875 declare that the study titled: **Barriers and facilitators associated with partograph completion by midwives in a referral hospital in Botswana**, is my original work and has not been submitted before for any degree or examination at any other institutions. All sources that have been used or quoted have been acknowledged by utilising a complete in-text reference and in the bibliography.

_____ _January 2022__

Signed Date

BARRIERS AND FACILITATORS ASSOCIATED WITH PARTOGRAPH COMPLETION BY MIDWIVES IN A REFERRAL HOSPITAL IN BOTSWANA

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ABSTRACT

Introduction and Background

The partograph (or partogram) is a tool commonly used to monitor maternal and foetal wellbeing during labour and is recommended by the World Health Organization (WHO). A significant number of maternal, perinatal, and neonatal mortalities are caused by obstructed and prolonged labour, resulting from poor labour monitoring practices such as lack of proper partograph completion and timely interventions. Studies have shown that when the partograph is completed correctly, early diagnosis of complications and timeous interventions will be possible, resulting in the prevention of a significant number of mortalities. The reduction of maternal, perinatal, and neonatal mortalities is vital because the world regards them as serious birth challenges that need to be addressed aggressively.

Despite the monitoring and evaluation project named Maternal and Mortality Reduction Initiative (MMRI) that the Botswana Ministry of Health and Wellness embarked on in 2013, partograph completion was still low. The low percentage of partograph completion led to the researcher's assumption that partograph completion was still a challenge. This assumption prompted the need to explore the barriers and facilitators associated with partograph completion by the midwives working in the selected referral hospital.

Aim of the study

The study aimed to explore and describe barriers and facilitators associated with partograph completion by midwives in the selected referral hospital in Botswana.

Research design and methods

A constructivist approach was used to do a qualitative, explorative, and descriptive research study. The study population was midwives working in the labour ward of a referral hospital in Botswana. From the study population, ten participants were initially sampled by purposive sampling. The researcher interviewed the ten participants and added two more as determined by data saturation. Data was collected through individual interviews using semi-structured open-ended questions. Interviews were recorded using an audiorecorder and later transcribed verbatim. A thematic approach was used to analyse the data. Relevant literature was integrated during results discussion. Trustworthiness and ethical principles were adhered to throughout the study.

Findings

The results addressed the two main themes namely barriers and facilitators to partograph completion. The health care system barriers that emerged included the health care provider barriers, the health care facility barriers, and the health care system barriers. The identified facilitators to partograph

completion were the human resource-related, the midwife related, support related, and the partograph related facilitators. The themes were sectioned into different categories and sub-categories for an extensive discussion. The third theme that emerged addressed recommendations relevant to the two main themes. The participants recommended that the identified barriers should be addressed, and the perceived facilitators should be strengthened, as ways to improve the partograph completion.

Conclusion

The findings of the study revealed the barriers to partograph completion and facilitators to partograph completion as perceived by the midwives. Recommendations to convert the barriers into facilitators were made.

Key terms /concepts

Barriers; Facilitators; Midwife; Partograph; Referral hospital

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LIST OF ABBREVIATIONS

ATLAS.ti	A computer program used mostly but not exclusively in qualitative research or qualitative data analysis.
COVID-19	'CO' - corona, 'VI' - virus, and 'D' - disease. The COVID-19 virus is a new virus identified in the Wuhan Province of China in December 2019. It is linked to the same family of viruses as severe acute respiratory syndrome (SARS) and some types of common cold.
ICM	International Confederation of Midwives
DHMT	District Health Management Team
EmONC	Emergency Obstetric and New-born Care
MDG	Millennium Development Goals
MMRI	Maternal Mortality Reduction Initiative
MoHW	Ministry of Health and Wellness
NNCB	Nursing and Midwifery Council of Botswana
OBGY	Obstetrics and Gynaecology
SDG	Sustainable Development Goals
UN	United Nations
UNPF	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization

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1. ORIENTATION TO THE STUDY

1.1. INTRODUCTION

'World over, inadequate use of the partograph by health workers to monitor the progress of labour has been reported' (Masika, Katongole & Govule, 2015:38). The partograph is a tool that is used during labour to record salient features of the maternal and foetal conditions, hence guiding the process of monitoring labour. On the charting area, the partograph has an alert and an active line. When labour progresses appropriately, the graph of cervical dilatation lies to the left or on the alert line. If the labour is not progressing normally, the cervical dilatation graph will be on or to the right of the active line, indicating delayed labour progress where necessary actions need to be taken (Bolbol-Haghighi, Keshavarz, Delvarianzadeh & Molzami, 2015:561). The action line guides the health care provider that actions must be taken to correct the deviations to prevent complications to the mother and baby (Masika et al. 2015:2). Although the partogram is globally accepted, studies reveal that partograph use has not reached its full potential in most African countries (Lavender & Bernitz, 2020:1).

According to Zelellw and Tegegne (2018:201), if the partograph is effectively completed, complications to the mother and the unborn baby may be identified and prevented at the right time. It has also been identified that non-completion of the partograph is often related to poor outcomes for the mother and the unborn baby, mostly in low-income countries (Yazbek & Jomeen, 2019:15). In their study, Muthusi, Nyamoita and Stephen (2019:235) concluded that there is a relation between the completion of the partograph and the outcomes to the mother and the foetus, as well as the progress of labour. Muthusi et al. (2019: 235) further stated '…in cases where the maternal and foetal outcome, and labour progress is positive, there is a high likelihood of having a properly filled partograph'.

Obstructed and prolonged labour are some of the major and significant causes of death for both the mother and the unborn, or the new-born baby at the time of delivery (Anokye, Acheampong, Anokye, Budu-Ainooson, Amekudzie, Owusu et al. 2019:1-2). Anokye et al. (2019:1) state that obstructed and prolonged labour may also lead to disability to the baby either in the short or long term, due to birth asphyxia. Other major complications that may be experienced are cerebral palsy, delayed development, impaired vision, and hearing, limited intellectual capacity and epilepsy (Anokye et al. 2019:1). These complications may also be experienced at a later age as it has been seen that teenagers who suffered birth asphyxia are more likely to perform poorly when their intellectual development is evaluated, and they also suffer from epilepsy compared to their peers who have not had birth asphyxia (Anokye et al. 2019:2).

The United Nations adopted in 2015 the Sustainable Development Goals (SDGs) building on the Millennium Development Goals (MDGs), (World Health Organization, 2015:2). SDG number 3 aims at 'Good Health and Wellbeing' with SDG 3.1 targeting the reduction of maternal mortality to less than

70/100 000 live births by the year 2030 (World Health Organization, 2015). Nevertheless, the World Health Organization (WHO) (2019:32) reported the latest update of the global maternal mortality ratio of 211/100 000 live births in 2017, which is about three times higher than the 2030 target. The maternal mortality ratio in Botswana was equally high at 143.2/100 000 live births in 2017 (Statistics Botswana, 2019:3). Sinvula and Insua (2015:1) state that among the causes of maternal mortality is obstructed and prolonged labour which often leads to rupture of the uterus with subsequent bleeding to death which could be easily detected using the partograph. Sama, Takah, Danwe, Melo, Dingana and Angwafo (2017:1) in their study state '…evidence abounds that cost-effective and affordable health interventions like the use of the partograph will contribute to curbing the alarming number of intrapartum deaths.'

1.2. PROBLEM STATEMENT

Botswana has pledged with the rest of the world to reduce maternal mortality to less than 70/100 000 as per the 2030 agenda of the United Nations (WHO, 2015:2). To reduce obstetric complications leading to maternal, perinatal, and neonatal mortalities, the WHO recommended partograph use, as a tool to monitor the wellbeing of the mother and the unborn baby, as well as the progress of labour (Bedwell, Levin, Pett & Lavender, 2017:1). In their study, Mukisa, Grant, Magala, Ssemata, Lumala and Byamugisha (2019:2) reflect that although there are documented benefits of completing the partograph, there have been challenges in adopting it in low and middle-income countries.

Partograph use in labour monitoring has been justified through literature in several studies as the tool to diagnose prolonged and obstructed labour (Pattison et al. 2003 as cited by Mathibe-Neke, Lebeko & Motupa 2013:146). Bedwell et al. (2017:1) state that '...whilst the partograph itself may be viewed as a simple tool, it is sometimes not used or completed as intended, suggesting there may be problems with the tool itself.' Lavender, Cuthbert, and Smyth (2018:10) argued that though the partogram is currently generally accepted and widely used, its use appears valid if there is no stronger evidence to invalidate it. However, most of the papers report that the partograph is often used incorrectly or not used at all (Lavender & Bernitz, 2020:7). The assumption then arises that there are still some challenges and gaps related to partograph use.

To accelerate efforts towards the reduction of preventable maternal, perinatal, neonatal morbidity and mortality as well as other birth-related complications, the Botswana MoHW embarked on a monitoring and evaluation project named Maternal and Mortality Reduction Initiative (MMRI) in 2013. One of the aims of the project was to monitor best practices during labour, including the correct use of the partograph (Sinvula & Insua, 2015:1). If used correctly, the partograph allows early identification of complications in labour, and can prevent death (Mukisa et al. 2019:2). However, non-completion of the partograph was still a problem in Nyangabgwe referral hospital in Botswana. This was evidenced from

the data collected by the Maternal Mortality audit team where partograph completion was at an average of 52% for 2019.

Additionally, the researcher noted from the MMRI team reports that over a period of three months ranging from November 2019 to January 2020, the respective averages for partograph completion were 53%, 43% and 49%, resulting in an average completion rate of 48.3% over the three months. The identified problem was the lack of partograph completion, and the researcher found it necessary to do a qualitative study to avail information on the barriers and facilitators to partograph use as suggested by Lavender et al. (2018:12). The purpose of this study was to explore the barriers and facilitators associated with partograph completion by midwives in a referral hospital in Botswana.

1.3. RESEARCH QUESTION

The following research questions were formulated for this study:

- What are the perceived barriers associated with partograph completion experienced by midwives in a referral hospital in Botswana?
- What are the perceived facilitators to partograph completion by midwives in a referral hospital in Botswana?

1.4. AIM OF THE STUDY

The overall aim of the study was to explore and describe barriers and facilitators associated with partograph completion by midwives in a referral hospital in Botswana.

1.5. KEY TERMS AND CONCEPTS

1.5.1. BARRIERS

A barrier means a circumstance or obstacle that keeps people or things apart or prevents communication or progress (Oxford Dictionary of English, 2010:344). For the study, barriers were the circumstances or obstacles that the midwives experienced and perceived as preventing them from partograph completion while monitoring women in labour.

1.5.2. FACILITATORS

The partograph refers to “A person or thing that makes an action to be easy or easier’ (Oxford Dictionary of English, 2010:1561). For the study, facilitators will be enablers that the midwives experience to be available or in place to make partograph completion feasible or easy for them.

1.5.3. MIDWIFE

A midwife is a person who has been regularly admitted to a midwifery educational program, duly recognised in the country in which it is located, has successfully completed the prescribed course of studies in midwifery, and has acquired the requisite qualification to be registered and or legally licensed to practice midwifery (ICM, 2015:7). For the study purpose, the midwife was a nurse who had been trained at any midwifery training institution, licensed by the Nursing and Midwifery Council of Botswana (NMCB) as a midwife, and practising in the labour ward of the referral hospital in Botswana.

1.5.4. PARTOGRAPH (PARTOGRAM)

The partograph is a chart in which important features of labour are recorded in a graphic form and therefore provides the opportunity for early identification of deviations from normal, or a graphical record of the progress of labour (Mathibe-Neke et al 2013:146). In this study, the partograph refers to the graphical paper-based tool within the obstetric chart, used by midwives to record findings of the foetal and maternal assessment during labour. It assists in the early diagnosis of complications and timeous interventions.

1.5.5. REFERRAL HOSPITAL

Referral hospitals are hospitals or health facilities equipped to deal with specialised diseases, medical needs, and care, providing services such as psychiatric care, obstetrics and gynaecology, oncology, audiology, and rehabilitative care among others *(www.moh.gov.bw/hospitals1.html).* In this study, a referral hospital will be a higher-level health facility, which receives patients including pregnant women, who need tertiary level health care services.

1.5.6. PRIMARY HOSPITAL

Primary hospitals are general hospitals equipped with dealing with most diseases, injuries, and immediate threats to health *(www.moh.gov.bw/hospitals1.html).* For this study, primary hospitals will be those lower-level health facilities offering non-specialised health care and referring complicated or high-risk cases to the referral hospital.

1.6. METHODOLOGY

The methodology for this study was a qualitative exploratory and descriptive design; used to explore and describe the barriers and facilitators associated with partograph completion in a referral hospital.

The research methods are summarised in Table 1.1 and discussed in detail in Chapter 2.

Table 1.1 Research Methods

ASPECT	DESCRIPTION
Research design	A qualitative explorative and descriptive design following constructivist paradigm *(refer to section 2.2).*
Setting	The setting was the labour ward in Nyangabgwe Referral Hospital in Botswana *(refer to section 2.2.2).*
Study population	The study population is the midwives who are working in the labour ward of a referral hospital *(refer to section 2.2.3).*
Sampling method	The sampling method used was purposive or purposeful sampling which involves intentionally picking the ideal respondents that will benefit the study by providing rich information that will answer the research questions *(refer to section 2.2.3.1).*
Data collection	Collection of data was done through semi-structured interviews using pre-determined open-ended guiding questions *(refer to section 2.4).*
Data analysis	The data was analysed using a thematic approach with ATLAS.ti 9 qualitative computer data analysis program *(refer to section 2.5).*
Trustworthiness	Trustworthiness was based on the four criteria, being credibility, dependability, confirmability, and transferability *(refer to section 2.6).*

1.7. ASSUMPTIONS

A paradigm is a world view or a general perspective on the complexities of the world (Polit & Beck, 2017:11). A constructivist approach was used for the study. According to Creswell (2014:37), this approach seeks to understand how the participants view the world or the place where they live or work. It also derives the meanings of concepts as perceived and interpreted by the participants. The

constructivist paradigm assumes that a phenomenon is better understood from what the participants verbalise (Polit & Beck, 2017:12). The researcher's aim was to interview the participants and make conclusions based on their perceptions regarding barriers and facilitators associated with partograph completion.

1.7.1. ONTOLOGICAL ASSUMPTIONS

Ontology is the study of the nature and the reality and is concerned with the subjective and multiple realities as seen or experienced by individuals (Polit & Beck, 2017:11). In relation to the constructivist paradigm, the ontological assumption regards reality as mentally constructed ideas by individuals and does not believe in the cause and effect (Polit & Beck, 2017:11). This study adopted the relativist ontological approach. The midwives related their perception, to give the researcher insight into the barriers and facilitators associated with partograph completion in the referral hospital. The researcher used the themes and quotes from the participants' words which gave the different perspectives, and the themes served as the evidence to those perspectives according to how the participants viewed them.

1.7.2. EPISTEMOLOGICAL ASSUMPTION

According to Crotty (1998 as cited by Al-Saadi 2014:2), 'Epistemology involves knowledge, and it embodies a certain understanding of what that knowledge entails.' Polit and Beck (2017:13) describe epistemology in relation to the constructivist paradigm as the researcher's interaction with the participants. It implies that findings are derived from the interaction between the researcher and the participants. The participants' perspectives, explanations, logic, meaning, believes, and worldviews are used to explain their values and practices. The researcher believed that knowledge would be generated from engaging with the midwives through the interview, to explore and describe the barriers and facilitators to partograph completion as they perceived them in their workplace.

1.7.3. METHODOLOGICAL ASSUMPTIONS

Polit and Beck (2017:12) state that in the methodological assumption the question asked is how the researcher can obtain the best evidence. The researcher used the inductive approach, which emphasises verbal information that is not quantifiable. The basis of the insights is the participants' perceptions as they related and described them. The information is narrative, unstructured and seeks an in-depth understanding of the trend of events or behaviour (Polit & Beck, 2017:13). The data was collected through an explorative and descriptive method, using face-to-face individual interviews. The researcher used the patterns or common findings and responses in the raw data to conclude of the study delineation.

1.8. SIGNIFICANCE / CONTRIBUTION

According to Polit and Beck (2017:16), nursing research seeks to identify solutions to existing problems or to find answers to questions, which are relevant to nursing. This study is applied research that aims at exploring and describing the barriers and facilitators to partograph completion in a referral hospital.

The study is expected to contribute to the following:

- **Health care system**: The study is expected to reveal barriers and facilitators to partograph completion by midwives working in the referral hospital. From knowing and addressing these, the results may contribute to the correction of the identified barriers that have been identified from the participants' responses, and implementation and reinforcement of the measures that the participants see as facilitators. This may eventually result in best practices regarding partograph completion, leading to early identification of gaps and reducing maternal and perinatal mortality.
- **Women in labour:** Exploring and knowing the barriers and facilitators of partograph completion will result in recommendations and possible solutions. This will lead to early identification of complications and interventions, improved service delivery, reducing maternal, perinatal, and neonatal mortality and morbidity, and fulfilling SDG goal number three.
- **Training:** The midwifery training institutions affiliated with the hospital will benefit in terms of students acquiring knowledge as qualified practising midwives and utilising the knowledge from the study, to improve their practical performance. The trained midwives may apply the study results to guide them in practising quality intrapartum care through proper partograph completion and early identification of maternal complications and prevention of intrapartum complications.
- **Research:** Finally, the study anticipates assisting future researchers to use the findings and recommendations to inform and guide further research.

1.9. ETHICAL CONSIDERATIONS

Ethical considerations focus on the necessity for the participants to be protected by the researcher. This includes the development of trust, promoting research truthfulness and honesty, and avoiding all forms of misconduct and indecency that may damage the reputation of the organization or institutions (Creswell 2014:132). Attention has been given to ethical issues throughout the study, as well as data storage. The researcher considered the following ethical issues.

1.9.1. BENEFICENCE AND NON-MALEFICENCE

This concept in research ethics involves the researcher's obligation for the study to produce benefits for the study participants and to minimise harm (Polit & Beck, 2017:258-259). The concept of beneficence and non-maleficence covers different aspects such as the right to freedom from harm and discomfort such as physical, emotional, social, or financial harm, as well as the right to freedom from exploitation. It ensures that the researcher does not cause a disadvantage or exposure to damages on the side of the participants.

The study had no obvious or direct risk that will be imposed on the participants. The researcher respected the study site and ensured no disruption to the services, as well as leaving the site undisturbed at the end of the study.

1.9.2. INFORMED CONSENT AND FULL DISCLOSURE

Polit and Beck (2017:261) explain informed consent as, giving the participants adequate information about the research and allowing either consent or refuse participation in the study. Respect for human dignity must be considered, which involves the right to self-determination encompassing freedom from coercion, the right to full disclosure encompassing the researcher's obligation to describe the nature of the study in full, the likely risks and benefits and the right for the participant to refuse participation.

The researcher asked the participants to consent freely without any coercion. The researcher gave individual full and detailed explanations to participants. The researcher also informed participants about their right to withdraw from the study anytime they wished during the research, even after the prior signing of the consent form. The objectives of the study and the way the researcher was going to use the collected data were explained before participants could give their consent. The participants were informed about the need for the researchers' supervisors to access the study data, and verbal consent was sought regarding this matter. Informed consent was sought from the participants (refer to Annexure D), as the participants' information and informed consent document was read together with them prior to requesting them to sign the document.

Before conducting the research, ethical clearance was sought from the University of Pretoria, Research Ethics Committee (refer to Annexure A). Following approval, a request application was filled and sent to the Ministry of Health and Wellness; Botswana (refer to Annexure B) requesting permission to conduct the study**.** Institutional permission was also requested from the management of the study site, which is Nyangabgwe Referral Hospital in Botswana (refer to Annexure C). The management of the unit were verbally informed about the intention to conduct the study after approval was obtained from all relevant authorities, and they were issued with copies of the approval letters.

1.9.3. JUSTICE, CONFIDENTIALITY AND ANONYMITY

Justice refers to participants' right to fair treatment and to privacy (Polit & Beck, 2017:262). This involves the equitable distribution of the research benefits and burdens. Distribution of justice also involves non-exploitation of participants who may be unable to protect their own right and does not discriminate against those that may benefit from the study. The right to privacy requires researchers to ensure that their research is not more intrusive than necessary.

In this study, the anonymity of participants was not possible, as they were purposively selected. However, code numbers were used to protect their identities throughout the study and after the completion of the study. As the staff worked closely together, all the collected information would be treated with the strictest confidentiality so that no participant is put at risk of victimisation or unfair treatment because of the information shared.

The researcher conducted the interview with the individual participants in a private room in the hospital, on a specific date and time set for each participant. Interviews were audio-recorded, then the data was transcribed verbatim in a private room, using earphones to avoid information being overheard by any other person. The researcher used a personal audio recorder specially dedicated for the study and operated by the researcher alone. The participants were informed about the presence of a health care assistant (axillary nurse) who was taking notes, and they were assured about the confidentiality rules that the assistant had to maintain. The recording device and hard copies or written materials of the data will be kept in a secured lockable cabinet to ensure adherence to legal requirements and ethical guidelines.

1.10. SUMMARY

This chapter provided a general overview of the study. The chapter serves as a basis for further discussions to provide an insight on what the researcher will discuss regarding what the midwives perceived as barriers and facilitators associated with partograph completion by midwives in a referral hospital. In chapter 2, there will be a discussion about the methods used during the entire study.

2. RESEARCH METHODOLOGY

2.1. INTRODUCTION

Chapter 1 focused on the overview to give an overall insight about the study, additionally touching on ethical considerations. Chapter 2 will give a more detailed discussion on the methods that were used to find out more about what the midwives working in the labour ward of the referral hospital perceive as barriers and facilitators to partograph completion. The chapter will discuss the research design and methods, setting, study population, sampling method, data collection and analysis, as well as trustworthiness.

2.2. RESEARCH DESIGN

A research design is based on the way in which data may be best obtained, and who is to be included as the study population (Polit & Beck, 2017:307). The researcher planned for a variety of emergent circumstances in relation to the period of data collection, the budget, and the setting. The researcher should make the design more responsive to any situation and to the phenomenon that is being explored (Polit & Beck, 2017:307).

The researcher's aim was to explore and describe the barriers and facilitators that are associated with partograph completion by midwives in a referral hospital in Botswana. A qualitative explorative and descriptive design was used, guided by a constructivist paradigm. Constructivists emphasise that human beings can shape, create, and relate what they experience or have experienced. They focus on understanding the human experiences as they are (Polit & Beck, 2017:14). Descriptive enquiries seek to know the way the phenomenon is structured, and its importance (Polit & Beck, 2012:17). Exploration enquires the nature of the phenomenon; what exactly is going on, how it occurs what the participants' views and experiences are (Polit & Beck, 2017:17). The choice of explorative and descriptive design is linked to the participants' work environment, from which the researcher had to interview them to understand the barriers and facilitators to partograph completion. Data was analysed according to themes and patterns that emerged from the participants' content as they narrated their experiences and perceptions as described in Chapter 3 (3.3).

2.2.1. METHODS

Methods in research are described as ways that are used by the researcher in structuring a research study, in gathering and analysing data that is related to the research question (Polit & Beck, 2017:12). This is 'an approach for exploring and understanding the meaning that the individual or groups ascribe to a social or human problem' (Creswell, 2014:32). Gray, Grove and Sutherland (2017:71) state that qualitative exploratory and descriptive research aims to address problems that need to be understood or to be solved. Since this study is a qualitative explorative and descriptive study, the data is not interpreted in-depth and the researcher summarises the data according to the phenomenon of events as it is relayed (Polit & Beck, 2017:846). The researcher conducted face-to-face semi-structured interviews to get an understanding of the barriers and facilitators associated with partograph completion by midwives. The participants were asked to tell their thoughts and beliefs based on their work experiences in relation to the topic that is being studied as described by Polit and Beck (2017:14).

2.2.2. RESEARCH SETTING

The setting can be described as 'the location where the study is conducted' (Gray et al. 2017:522). Polit and Beck (2017:107) state research may be done in various settings, which are the places specified for gathering information. The research question and the type of data to be collected guide the choice of the setting. Since this study is a qualitative, explorative, and descriptive, it was conducted in the participant's natural setting. The setting was the labour ward in Nyangabgwe Referral Hospital in Botswana. It is one of the three referral hospitals in Botswana, located in the northern part of the country in the North-East district. The hospital has a bed capacity of 550 beds, of which 8 beds are in the labour and delivery ward. The facility caters for the northern half of the country and accepts referrals from four district hospitals and seven primary hospitals as well as patients from nearby local clinics.

The labour ward admits pregnant women from twenty-four weeks of gestation, and early post-partum women, offering labour monitoring and delivery services. The average monthly admissions were 550 patients and approximately 450 babies were delivered per month. The average number of deliveries in twenty-four hours was fifteen. There were two admission assessment beds, five labour-monitoring beds and one delivery bed. The labour monitoring beds were also used as delivery beds. One department nurse manager and one unit manager, whom both have midwifery qualifications, managed the unit. The unit had twenty-six midwives responsible for admissions, monitoring labour and conducting deliveries for low-risk mothers. Five support staff included three health care assistants and two hospital orderlies (hospital/nurse assistant). The study participants were the midwives who were working in the labour ward at the time of data collection and were responsible for monitoring women during labour, completing the partograph and conducting the deliveries. According to the MMRI 2019 quality

improvement report, the average midwife-to-patient ratio in the labour ward was 1:5, while the ideal recommended ratio for the labour and delivery ward is 1:2 for women in labour and 1:1 for delivering women (WHO, 2010:11; WHO, 2019:16).

2.2.3. POPULATION

Polit and Beck (2017:456) describe the population as a whole collection of cases that the researcher is interested in. Since this study is nursing research, the selected study population is the midwives who are working in the labour ward of a referral hospital. Twenty-six midwives who are working in the labour ward and registered with the Nursing and Midwifery Council of Botswana compose the population of study from which a sample was drawn. The researcher assumes that this is the ideal population to provide adequate and relevant information on barriers and facilitators to partograph completion in the referral hospital.

2.2.3.1. SAMPLING METHOD AND SAMPLING SIZE

According to Gray et al. (2017:515), sampling involves selecting a group of people, events, behaviours, or other elements with which to conduct a study. Polit and Beck (2017:457) state that sampling refers to the selection of a part of the population to represent the whole study population.

For this study, the sampling method used was purposive (or purposeful) sampling. The strategy involves intentionally picking the ideal respondents who will benefit the study by providing rich information that will answer the research questions. According to Polit and Beck (2017:877), there is no specified sample size rule in qualitative research and usually based on the need for quality information, '…the sample size should be based on informational needs' (Polit & Beck 2017:877). Additionally, the sample size may vary based on the depth of information that will be needed for gaining insight into the phenomenon that explores and describes the concept (Gray et al. 2017:550).

The researcher specified the minimum sample size and was thereafter guided by data saturation. A minimum of ten midwives working in the labour ward were purposely sampled and two more were interviewed to ensure data saturation.

Invitation letters were given to the participants selected for the interviews, detailing the title, nature, and the purpose of the study as well as the procedure and expectations from the participants. A confidentiality declaration and the participants' consent were attached to the invitation letters.

2.2.3.2. INCLUSION CRITERIA

- Qualified midwives who are registered with the Nursing and Midwifery Council of Botswana (NMCB).
- Midwives who are working in Nyangabgwe Hospital labour ward and are providing maternity services in Nyangabgwe Hospital at the time of data collection.
- Midwives who have worked in the labour ward for a minimum of six months.

2.2.3.3. EXCLUSION CRITERIA

- Midwives who are not working in Nyangabgwe Hospital labour ward during the time of data collection.
- Midwives who are not currently providing maternity services in Nyangabgwe Hospital
- Midwife unit manager and department manager.
- Other health care providers apart from those specified.

2.3. PRE-TESTING

Before data collection, the researcher did a pilot interview for validating the relevance of the data collection tool, the interview questions, and to determine the time needed to conduct the interviews (Polit & Beck 2017:492). Pre-testing was done a week before the main data collection. For the pilot interview, the researcher selected and interviewed two midwives from the study site who were not part of the main study sample. All the processes that were to be applied for the major interview were followed so that they may give the researcher an idea of what to expect for the main interview. Major actions and responses from the pre-test were documented and kept in anticipation that the information may be needed later when writing the research report. The information may also help other researchers with a similar study (Polit & Beck 2017:494).

2.4. DATA COLLECTION AND ORGANISATION

The collection of data was done through semi-structured interviews using pre-determined open-ended guiding questions. The participants were individually allocated different times for the interviews, and they were interviewed individually. The researcher was the main interviewer assisted by a research assistant who was capturing the field notes. The researcher used a guiding tool that consisted of three major questions and probing questions under each main question (see Annexure E). Creswell

(2014:241) states that this type of interview is useful as it allows control of the questioning process. Probing questions were used to get more detail on the responses.

2.4.1. PREPARATION

Before commencing the research, ethical approval was sought from the Faculty of Health Sciences Research and Ethics Committee where approval was given (refer to Annexure A). Following approval by the University, a further application was sent to the Botswana Ministry of Health and Wellness Health Research Division and approval was also given (refer to Annexure B). The study site Institutional Review Board was also requested for permission to conduct the study, where the researcher was as well approved (refer to Annexure C). The labour ward management was then contacted per telephone conversation and was notified by the researcher about her plan to conduct the study. The unit management was requested to inform the midwives working in the labour ward about the researcher's intention to meet with them and recruit them for the study. Participants' information and informed consent documents were given to the midwives prior to the set date for the interviews, for them to familiarise themselves with what the study is intended for. Interviews were scheduled for the dates when the participants were not on duty to avoid disruption of the service.

2.4.2. THE INTERVIEW PHASE

The interviews were conducted over a period of five days. A quiet and convenient room was identified for conducting the interviews, where there were no interruptions during the interview process. In view of the COVID-19 pandemic, the researcher ensured adherence to the set protocols by observing a minimum of 1.5-meter sitting distance between the participant, the research assistant and herself in a well-ventilated room with an open outside window. The researcher provided single-use surgical masks which were worn by the participants, the research assistant and herself during the interaction process. The hand sanitiser and hand wipes were availed as well and used after every thirty minutes by the whole team as an additional precautionary infection prevention and control measure. The researcher provided bottled drinking water for each of the whole team, mainly for the comfort of the participant.

The researcher started by introducing herself as a student at the University of Pretoria, doing a research study towards a qualification for a Master of Nursing Degree. The researcher introduced the research assistant as well and assured the participants of the confidentiality declaration by both the researcher and the assistant. The researcher introduced the topic of the study, aims and objectives, nature and the purpose of the study, procedure and expectations from the participants, the possibility of no risks and benefits, nor compensation for the study. The researcher informed the participants about the right

to refuse participation or to withdraw from the study at any time without stating any reasons. The consent form was then read by the researcher and the participants together, to ensure that they understood. The researcher confirmed that the participants understood everything by asking them, then with their approval, the participants and the researcher signed the informed consent document prior to each interview session (refer to Annexure D). The researcher asked the participants to feel free and answer as openly as possible and not to be intimidated by the fact that the researcher has been their ward manager. The participants were informed that each interview is expected to last an average of thirty to forty-five minutes. They were asked to inform the researcher in case they needed to pause for any reason. The participants were made aware that the interviews were going to be audio-recorded as they are for academic purposes, and for good faithful transcription. They were also requested to feel comfortable with the research assistants' presence and assured that she will only be taking notes and not participate in the interview. The participants were informed that the media of communication will be English as it is the official language used for professional and academic communication.

The researcher switched on the audio recorder to capture the discussion. An interview guide was used (refer to Annexure E) as the guiding tool to direct questioning. The researcher started by asking the participants to introduce themselves which was intended to be an icebreaker. The introductions were followed by the main questions, the 'following question, the 'probing question, the 'specifying question' and lastly the 'structuring question.' The main questions were 'What would you regard as the barriers to partograph completion in the labour ward?' followed by 'What would you regard as facilitators to partograph completion in the labour ward?' Follow up probing questions followed each main question and were determined by the response to the main question (Creswell 2014:244). After asking the main questions, the researcher listened attentively and avoided interruptions, and only probed further to get more information, or to re-direct the discussion. There were twelve interview sessions which lasted from twenty-eight to forty-seven minutes, as the participants had different personalities, some talking less and some talking more. Non-verbal cues and non-verbal communication were observed and captured. Bracketing was done as the researcher had to avoid putting in her knowledge, own perception, and guiding questions.

2.4.3. INTERVIEW CONCLUSIONS

At the end of each interview, the researcher asked the participants if there was any more information that they would like to add or any questions to ask. This allowed the participants to vent out any other information that might have not been encompassed in the questioning, and any questions on information that they may want to clarify. After confirming that all issues have been addressed, a final thanking statement was made to acknowledge the time the interviewees sacrificed, and to appreciate their participation. The researcher informed the participants that they may come back in case there was

a need for further questioning or clarification. A sealed snack was provided for each participant to appreciate them for their participation.

The interviews were planned as such that they did not disrupt service delivery because they were scheduled on days when the participants were not on duty. The limitation experienced was that since the researcher had previously worked at the study site, some of the participants initially seemed not free to relay all the information until they were reminded and assured of the confidentiality declaration.

Following data collection, the researcher transcribed all interviews verbatim, listening to the audio recorder and looking at the notes to cross-check where it was not clear. Transcriptions were done in a private room that was free from any disturbances or anyone else, using earphones to avoid being overheard by other people.

2.5. DATA ANALYSIS

Creswell (2014:245) states that the analysis of data in qualitative research usually proceeds simultaneously as other phases of conducting the study. This denotes that whilst collecting the data, the researcher may proceed with analysing the data, which is already available, and may start writing up the findings (Creswell, 2014:245). Therefore, after each interview day, the researcher started transcribing the interviews, and picked the main themes and highlighted them in preparation for the main analysis.

After all the transcriptions were completed, the data was analysed using a thematic approach. A professional, external data coder was engaged to assist with the data coding. An ATLAS.ti 9 qualitative computer data analysis program was used to code and analyse the data. The computer system analysis was chosen since hand coding would have been laborious and time-consuming, and because of its efficiency in data storage and easy location of the qualitative data (Creswell 2014:245). The data was scrutinised line by line throughout the whole text and assignment and coding was done.

The following thematic data analysis steps were followed, as adopted from Creswell (2014:245).

- The data was organised and prepared for analysis. This was done by transcribing the interview recordings verbatim, scrutinising the material, and arrangement of the data by different sub-headings and meanings.
- The next step was to read through all the data to reflect on the overall meaning of the data and to get general ideas of the participants, the tone of the ideas, the impression of the overall depth and credibility of the information, as guided by Creswell (2014: 245).
- Coding was the next step. It involves the organisation of the data and categorising it with representative wording (Creswell 2014:245). Sentences or paragraphs were divided into

categories and sub-categories which were labelled with specific names based on the actual language and responses. Codes were used to describe the themes for easy analysis. The coding process was used to generate and describe the themes, categories, and sub-categories. The themes represent major findings in this study, being a qualitative study and they are used as headings in the finding's sections. The categories and sub-categories were used to display multiple perspectives from the individuals and are supported by diverse quotations (Creswell 2014: 249).

- A final step in data analysis involves interpreting the findings or results of a qualitative research (Creswell 2014:249). The researcher had to present the lessons learnt with the study and capture the essence of this idea (Lincoln & Guba, 1985) as cited by Creswell (2014:249). These lessons were the researcher's interpretation, depending on the understanding that the researcher brings to the study from a personal point of view and observations made from the participants during the interview process. The meaning could also be derived from a comparison of the findings with information gained from the available literature. Interpretation of the findings was done to point out the lessons learnt, recommendations and the conclusion of the study.

2.6. TRUSTWORTHINESS

Trustworthiness in qualitative research is based on four criteria as suggested by Lincoln and Guba (1985 cited by Polit & Beck 2017:982). These criteria are credibility, dependability, confirmability, and transferability. According to Polit and Beck (2017:983), the fifth criterion that Lincoln and Guba (1994) added is authenticity. It is more distinctively applicable within the constructivist paradigm which was used for this study.

2.6.1. CREDIBILITY

Credibility refers to confidence in the truth of the data and its interpretations (Polit & Beck, 2017:300). It involves enhancing the believability of the findings, as well as the demonstration of believability in the research reports (Polit & Beck, 2017:982).

In this study, the researcher used interviews as the only data collection method. The interviews were audio recorded to ensure that no information was missed, and notes were taken to support the recorded interviews. The interviews transcriptions included non-verbal gestures such as pauses and other non-verbal cues to give a true reflection of how the interviews went. Invitations and consent forms were signed and kept as supporting documents for obtained consent. Exploration and description of the participant's perceptions were done, and conclusions were drawn from interview responses. Adequate time was spent with the participants to allow a chance for enough and repeated questions, as well as

adequate response (prolonged engagement). Triangulation was applied when analysing the data to conclude from the audio recordings as well as from the field notes and converging different perspectives from the participants. Bracketing was applied to exclude the researcher's thoughts and knowledge of the setting and personal experiences.

2.6.2. DEPENDABILITY

In qualitative research, dependability is the stability or reliability of data regardless of the time and conditions. The question on dependability is whether the same results will be achieved if the study is to be repeated under the same conditions with the same or similar participants (Polit & Beck, 2017:982).

Dependability in this study was ensured by transparently describing all the steps taken from the beginning to the end. This encompasses developing and availing the research proposal, gathering, and analysing data, concluding the study, as well as consistently distributing results. The aims and objectives of the study were explained to the individual participants to guide them and enhance relevance. The participants' responses were captured as they were, and meaning was derived from those. Bracketing was applied so that the findings reflect the voice of the participants and the conditions of the interviews as much as possible, and not the researcher's perspectives or biases (Polit & Beck 2017:982). The researcher tried to encompass all responses in the data as much as possible, not only focusing on either the negative or the positive responses.

2.6.3. CONFIRMABILITY

Polit and Beck (2017:300) describe confirmability as the objectivity or neutrality of the data. There must be consistency and harmony concerning the accuracy, relevance, or meaning between different people or participants. The data analysis reflects the views of the participants as they related them, and the researcher did not interfere with the findings or responses. Recordings and transcriptions need to be consistent with the findings or responses (Polit & Beck, 2017:301). Therefore, during interviews, the researcher paraphrased the main points that the participants cited, to ensure accuracy. The researcher involved a research assistant to confirm the audio recording against the notes collected to ensure accuracy. After transcription, the participants were allowed to verify the transcripts to confirm that what was written was a true reflection of what they said (member checking). The study recordings and transcriptions will be kept for fifteen years for future reference in case there is a need to revisit them.

2.6.4. TRANSFERABILITY

Transferability is described by Polit and Beck (2017:331) as the ability for the data to be generalized, or how much of the findings can be transferred or be applied to other different settings or groups. The researcher's responsibility is to provide enough descriptive data in the research report so that consumers can evaluate whether the data applies to any other contexts (Lincoln & Guba, 1985 as cited by Polit & Beck, 2017:331).

The researcher was meticulous on every step of the study so that the findings obtained may be used by another study using the same methodology, though in a different setting. The data collection tool, signed participants' information and informed consent documents for each participant detailing the nature and purpose of the study, possible risks, discomforts and benefits of the study, participant rights and confidentiality declaration, are available and kept safe for future reference or further studies. The data has been densely described for other researchers who may want to use it.

2.6.5. AUTHENTICITY

Authenticity refers to the researcher's faithfulness and fairness in displaying the range of realities in the study. Authenticity is evidenced from the report when it demonstrates the tone of voice of the participants as they relayed their stories, leading to the readers being able to deduce pictures of the participants' experiences (Polit & Beck, 2017:983).

The researcher used exact quotations to adequately represent the multiple realities and the participant's voices. Code numbers and initials have been attached to the participants responses for easy identification when analysing data. Pauses and emotional responses have been documented so that they display the exact messages and non-verbal language communicated by the respondents.

2.7. SUMMARY

Chapter 2 provided an overview of the research methodology. The researcher made a detailed discussion addressing the research design, pre-testing, data collection, data analysis and finally, trustworthiness. In Chapter 3, the researcher discusses the research findings encompassing the data gathered from interviewing the participants, supported by literature.

3. RESEARCH FINDINGS

3.1. INTRODUCTION

In the previous chapter, which is Chapter 2, the research methodology was discussed in-depth to give an understanding of the research design and methods. Chapter 3 discusses the study findings as deduced from the data collected through the interviews. The chapter focuses more on the themes, categories and subcategories that were identified within the data, analysed, and discussed concerning the available literature to give a clear understanding. The chapter begins with the profiling of the participants' information, to understand their characteristics in relation to the study and the collected data.

3.2. PARTICIPANTS' INFORMATION

This study explored and described barriers and facilitators associated with partograph completion by midwives in a referral hospital in Botswana. According to Polit and Beck (2017:456), population is the collection of cases that the researcher is interested in for the study. In this study, the population was the midwives working in the labour ward of Nyangabgwe referral hospital in Botswana. These were the twenty-six midwives who were working in the labour ward and registered with the Nursing and Midwifery Council of Botswana. Sampling was done through purposive sampling to get the ten participants who were selected for the study. The researcher assumed that this was the ideal population to provide adequate and relevant information on barriers and facilitators to partograph completion in the referral hospital. Data saturation was reached when interviewing the tenth participant. However, two more participants were further interviewed to ensure that there was no new information emerging. Therefore, the total number of participants interviewed were twelve.

3.2.1. PARTICIPANTS' DEMOGRAPHICS

The participants are qualified midwives registered with the Nursing and Midwifery Council of Botswana (NMCB). At the time of data collection, the midwives were working in the labour ward of Nyangabgwe referral hospital in Botswana, providing maternity services. The selection criteria prescribed that those participants should be working in the labour ward for not less than six months, with different ages and gender. In the actual study sample, the participants' duration of midwifery qualification ranged from two to eighteen years, and their duration of work in the labour ward ranged from one year to three years. The duration of years working in the labour ward is limited to three years because there is an annual rotation of midwives between the labour ward, postnatal ward, and antenatal ward. The sample

comprised ten females and two males and was determined by their willingness to participate in the study. Table 3.1 provides a summary of the participants' characteristics. The twelve participants were labelled in numbers and 'P 'was used as an abbreviation to represent each participant.

3.2.2. QUALIFICATION AND REGISTRATION OF MIDWIVES IN BOTSWANA

For one to qualify and practice as a midwife, the individual must have undergone a three-year training to qualify for a Diploma or four years of training to qualify for a Degree in General nursing (Nurses and Midwives Act, CAP 61:03-27). Upon successful completion of the training, they will be registered with NMCB as a General Nurse. The general nurse may thereafter opt to or be selected by the employer to undergo twenty-four months of post-basic training as a midwife, whereupon completion they will be registered as a midwife. (Nurses and Midwives Act, CAP 61:03-41).

Table 3.1 Summary of Participants' Characteristics

Code number	Age	Gender	Qualifications	Years of experience as a midwife	Duration of working in the study site (Years/ months)
P1	**36**	F	Diploma in General Nursing, Diploma in Midwifery	5 years	1 year, 5 months
P2	**53**	F	Diploma in General Nursing, Diploma in Midwifery	18 years	2 years
P3	34	F	Diploma in General Nursing, Diploma in Midwifery	7 years	2 years, 2 months
P4	45	F	Diploma in General Nursing, Diploma in Midwifery	10 years	3 years
P5	45	F	Diploma in General Nursing, Diploma in Midwifery	7 years	3 years
P6	47	F	Diploma in General Nursing, Diploma in Midwifery	14 years	1 year

P7	30	F	Diploma in General Nursing, Diploma in Midwifery	2 years	1 year
P8	38	M	Diploma in General Nursing, Diploma in Midwifery	8 years	3 years
P9	43	M	Diploma in General Nursing, Diploma in Midwifery	11 years	1 year, 6 months
P10	38	F	Diploma in General Nursing, Diploma in Midwifery	11years	1 year
P11	29	F	Diploma in General Nursing, Diploma in Midwifery	2 years	1 year
P12	47	F	Diploma in General Nursing, Diploma in Midwifery	17 years	2 years

3.3. STUDY FINDINGS

Data collection was attained through one-on-one semi-structured interviews. Data was collected from the selected participants who met the selection criteria, and they were interviewed on specific appointed dates. The environment was made conducive by assuring the participants of the confidentiality declaration, so that they may relate all the information according to their real-life experiences. During the analysis of the collected data, several themes were identified as aligned to the study title and the study aim and objectives. The themes are barriers to partograph completion, facilitators to partograph completion, and the recommendations for partograph completion. The three themes are further broken down into categories and sub-categories, to dig deeper into the meanings from the participants' responses as illustrated in Table 3.2 below.

Table 3.2 Themes, Categories and Sub-Categories

THEMES	CATEGORIES	SUB-CATEGORIES
BARRIERS TO PARTOGRAPH COMPLETION BY MIDWIVES	1. Health care system utilisation barriers	○ Health care provider barriers
		○ Health care facility utilisation barriers
		○ Health care user barriers
	2. Organisational barriers	○ Inconducive work shifts
		○ Unmanageable workload
		○ Inadequate managerial support
	3. Human resource barriers	○ Shortages of midwives
		○ Staff absenteeism
		○ Inconducive staff-patient ratios
		○ Inconsistent availability of support staff
		○ Inadequate acknowledgement of midwives
		○ Nurses' negative attitudes towards midwifery
	4. Midwife related barriers	○ Midwives' accountability and responsibility barriers
		○ Midwives' competency barriers
		○ Midwives' perceptual barriers
		○ Midwives' personal wellness barriers
	5. Partograph related barriers	○ Frequency of checking ○ Unclear completion guidelines
FACILITATORS TO PARTOGRAPH COMPLETION BY MIDWIVES	1. Human resource-related facilitators	○ Sufficient midwives
		○ Availability of support staff
	2. Midwife related facilitators	○ Commitment to the midwifery profession ○ Teamwork
	3. Support related facilitators	○ Managerial support related facilitators
	4. Partograph related facilitators	○ Guides with decision making and timely intervention ○ Easy to understand

RECOMMENDATIONS FOR PARTOGRAPH COMPLETION BY MIDWIVES	1. Human resource-related recommendations	○ Recommendations for acknowledgement and recognition of midwives
		○ Recommendations for human resources allocation and rotation
		○ Recommendations for human resources provision (midwives)
		○ Recommendations for human resources provision (support staff)
		○ Recommendations for staff welfare
	2. Health care system-related recommendations	○ Recommendations for health care system utilisation
		○ Recommendations for health care user education
		○ Recommendations to address night shift barriers
		○ Recommendations to promote inter facility collaborations
		○ Recommendations to promote midwifery training
	3. Staff welfare-related recommendations	○ Recommendations for support of midwives
		○ Recommendations for staff motivation

3.4. THEME 1: BARRIERS TO PARTOGRAPH COMPLETION

A barrier is defined as a circumstance or obstacle that keeps people or things apart or prevents either communication or progress (Oxford University Press, 2010:1093). Barriers in this study will refer to circumstances or obstacles that the midwives experience and perceive to prevent them from partograph completion during labour monitoring. Lavender and Bernitz (2020:41) in their study said that the partograph is normally described as being simple for use during labour monitoring. However, it often requires an enabling environment and effective implementation. Lavender and Bernitz (2020:41)

continue to say that in most instances, the environment and the implementation process do not enable the partograph to reach its desired objective.

For this study, the researcher interviewed the midwives who are working in the labour ward and using the partograph for labour monitoring. The purpose of the interviews was to get the midwives perceptions of what could the circumstances or obstacles preventing them from fully completing the partograph when monitoring women during labour and delivery. From the data gathered, various factors were cited by the midwives as preventing them from fully completing the partograph, which may lead to compromised care because of the inability to diagnose and manage during labour and delivery complications on time.

The main question asked by the researcher was 'What would you regard as barriers to partograph completion in the labour ward?' The following health care system barriers were deduced from the participant's responses.

- Health care system barriers
- Organisational barriers
- Human resource barriers
- Midwife related barriers
- Partograph related barriers

3.4.1. HEALTHCARE SYSTEM UTILISATION BARRIERS

Health care system barriers are the obstacles related to the processes and functions that hinder the smooth operations of the health care facilities at their respective levels. There are three main health care levels in the Botswana health care system, being the primary level (health posts and clinics), the secondary level (primary hospital and district hospital), and the tertiary level being the tertiary or referral hospital *(www.moh.gov.bw/hospitals1.html).* All three health care system levels are expected to deliver a particular or specified level of health care. The health care system barriers as deduced from the narrations by the participants were the health care provider barriers, health care facility barriers, and the health care users' barriers.

3.4.1.1. HEALTHCARE PROVIDED BARRIERS

The participants said that the health care providers in the referring facilities often refer most of the clients who upon assessment at the referral hospital, the clients could have been assisted at the lower-

level facilities like the clinics with a maternity wing, as they would often be low-risk clients. They mentioned this as one of the contributors to low partograph completion at the referral hospital due to increased workload. This is evidenced from the following statements that were said by the midwives at the referral centre:

'*At times you see that they just find a reason for referring. But you find that there's nothing, they just write a reason like prolonged first stage when there's no prolonged first stage, they just write so that they refer. But really there won't be anything, no reason. Just because they want to go back and sleep or rest, we don't know.' (P2)*

'*Our counterparts at the clinics are failing us by not doing that education. Labour and delivery have to be given much attention when it comes to decision making, because we are dealing with two lives…the mother and the baby, so if it is not given much attention as it should, they can collapse the whole health care system.' (P3)*

'*The other issue is the way the midwives in those clinics work, because they will tell the patient that when they get into labour they should go to Nyangabgwe for delivery. So, they will tell them to say 'don't come to the clinic,' even if she's just a low-risk patient. They will tell them to just come to Nyangabgwe for delivery.' (P5)*

3.4.1.2. HEALTHCARE FACILITY UTILISATION BARRIERS

The participants cited a low utilisation of clinics with maternity wings as a contributing factor to the congestion at the referral hospital and high workload for the midwives working there. This led to inadequate documentation and low partograph completion at the referral hospital, as mentioned by one in the quotation below.

' *I think if they were being utilised our patient ratio would be better...but we have clinics around, but they are not delivering. All patients are sent to Nyangabgwe, especially during this time of Covid...they don't deliver them, they are all sent to Nyangabgwe.' (P2)*

The other issue was that one of the primary hospitals within the catchment area was not providing maternity services as it had been converted to a COVID-19 isolation centre. This leads to all patients within that area (even low-risk clients) being referred to the higher-level facility (referral hospital), leading to misappropriate utilisation of services. This was said by one of the participants as stated below.

'*And of late we have patients from Masunga area. I hear the maternity wing is closed because they are building a COVID centre. So, all these patients from the northeast they come here, all…literally all. No matter what, they come here. And maybe those ones who come fully dilated to Masunga, that is the ones they deliver. Otherwise, they come if there's still time for them to refer here making it very hectic.' (P2)*

The participants mentioned that one major challenge is that the labour ward is also the reception and admission area for all the patients coming to all the Obstetrics and Gynaecology services, which is the antenatal ward, postnatal ward, and labour ward. This further increases the workload for the midwives in the labour ward as they must assess them and dispatch them to the relevant units according to their conditions.

'*But at times you find that we are not using it appropriately in the fact that you'll find that there are some gaps in some variables. Like in our instance here aahh, our setting is such that our labour and delivery is the same place that we have our admissions. So, our admissions, whether they go to postnatal, or to antenatal or we admit them straight into labour ward, they come through labour ward first. That's our setup here.' (P8)*

3.4.1.3. HEALTHCARE USER BARRIERS

The participants cited an unbalanced utilisation of the available health care facilities that provide maternity services by the clients. This was evident by the many low-risk clients leaving the local clinics and coming to the referral hospital without being referred (walk-ins).

'…our clientele here, they tend to come at night because I don't know who…whether it's a policy, but no, it's not a policy as such. I don't know whether it's because of lack of transport especially at night, they tend to come to the facility at night. Then you know you cannot discharge them at night, even though even if they are not, maybe in labour or whatever, you cannot send them back home especially later at night, because there won't be any transport. So, majority of our clients they come at night knowing that once they're here, they won't be returned back home, they will end up being kept as inpatients probably for that night or two, even if not in labour'. (P6)

'*Yeah, I would say we see clients that we attend to, and most of them they're not really patients for referral; because some of them they'll just come as walk-ins just deciding that's 'me I'm going to deliver in Nyangabgwe'. Some patients will choose where they want to deliver, so if they are here, we cannot return them.' (P9)*

'*We're seeing a lot of patients who are not really candidates for a referral hospital. Some of them, they just come on their own because, isn't it they just make a choice of where they want to deliver. They just come here just because they want to deliver in Nyangabgwe hospital. But some…some of the referrals.' (P10)*

3.4.2. ORGANISATIONAL BARRIERS

Barriers within the organisation are some of the factors that can hinder the health care providers' performance. In this study, the organisational barriers below were cited as some of the factors leading to midwives not completing the partograph as required.

3.4.2.1. INCONDUCIVE WORK SHIFTS

The midwives mentioned that the night shift is the longest and most busy shift with more workload and that from their observation, most clients deliver at night. This results in a lot of gaps due to high workload and the midwives' exhaustion.

'*The night duty...why, because the hours are very long. There's a lot of burn-out for you to work, those thirteen hours. I would say thirteen hours because that thirteenth hour is for the handover. The night duty has got thirteen hours. So, in the process you know you end up being overwhelmed by even the fatigue itself, you end up not being able to complete the variables properly.' (P6)*

'*It is during the night shift. That is where you see more and more and more gaps.' (P7)*

'*Now when it comes to night shift like I was saying, usually we are four in the shift. So, during night shift, mostly you'll find that the other supporting staff they are not there, almost all of them they won't be there. Only a few like doctors, but mostly they'll be on call covering all the four wards. So, that's when you'll find that they are more gaps especially when the night shift is busy. At times you end up omitting those vaginal examinations unintentionally. And then where the patient was supposed to be done examination, we end up writing "ward busy," so that the next person can see that I didn't miss that examination intentionally.' (P8)*

3.4.2.2. UNMANAGEABLE WORKLOAD

The midwives reported unmanageable workload attributed low midwife to patient ratio. This was reported to be due to a shortage of staff and high patient flow. This was also because the admission area for all maternity clients is in the labour ward. The admissions area receives antenatal and postnatal

admissions, as well as labour and delivery clients who will all be taken care of by the midwives allocated to the labour ward.

'*It will be challenge since then we will be giving priority to the labour unit since if someone is delivering you can't say they can wait. We will be weighing the situation, then you will have to leave the patients at the admission area, and if there are no patients for theatre, the person allocated to theatre will be helping in theatre. Then the challenge will be that we may have complications at the admission area while one is still conducting the deliveries the other side. Then this challenge then goes round in circles like that.' (P1)*

'*We are always running between the clients just so that we make sure that they are not in any danger, and so that they don't end up delivering on their own. I can tell you that no midwife wants to do short cuts in their work, but the conditions that we are working in, they end up putting us in a very difficult situation of taking short cuts in our work. You would check the cervical dilatation, then move to another patient to check, and then to the other.' (P3)*

'*It is always a challenge, that's where our challenges come from since then we will be giving priority to the labouring woman who calls for help or maybe already in second stage. Then monitoring those in first stage suffers a lot. It will just be a matter of trying to have a live mother and baby but not following what guides us to diagnose such. That is when gaps will be more, like I said.' (P3)*

'*But I wouldn't deny that at times we don't use it accordingly. You'll find that the fact that maybe we are short staffed, we end up not completing it accordingly because like I said before, I'll tell myself that; let me concentrate on what I think its most important…the foetal heart and the dilatation of the cervix, yet I may miss another important variable.' (P8)*

3.4.2.3. INADEQUATE MANAGERIAL SUPPORT (INCLUDING WELLNESS SUPPORT)

The midwives said inadequate psychological and wellness support from the ward and hospital managers is one of the factors leading to low morale and low-performance results. They mentioned that the low performance can be evident by inadequate partograph completion. The midwives said that they need their managers to be with them so that they can appreciate the difficulties that they go through. These sentiments are seen in the quotations below.

'*The management they're not supporting us. We have long informed them that we need more midwives, yes.' (P5)*

'*So it's not that we have not complained about that issue that we are discussing, or that we hardly see our supervisors. They come in and go, they come, and they go. And they're always busy, I don't know what, but sometimes allow me to say this… myself since I came to labour ward, I've never seen my immediate supervisor coming into labour and delivery's room, just inside the delivery section. And we were talking about it the other time, even in-ward conferences, we do talk about it. But people they will always say they are busy with some other things, their managerial duties, so I don't know the managerial duties which are… maybe because I'm not in that position…' (P6)*

'*There's no support because I think we need counselling. Ever since I came here usually you will go for the report and you are informed that 'we have lost so and so…, we had a maternal death.' Then, it just goes like that without doing any counselling.' (P9)*

'*Ok yeah, the support like I said that is not very much, and it's hectic because, when something happens you will be liable for that. You will be expected to be answerable, like when the work is too much here, you don't see anyone. But if something happens everybody will be on your case with questions. You'll be questioned, they want to know what really happened, but they know that you are not much in the shift. Let me say, they only say that patients are always right. So, you find that there will be more stress added, by being asked more questions on what really happened.' (P10)*

3.4.3. HUMAN RESOURCE BARRIERS

Human resource constraints are some of the barriers to partograph completion. When the number of staff available in a shift is less when compared to the number of the clients in need of the care, it becomes difficult to complete the partograph accordingly.

3.4.3.1. SHORTAGES OF MIDWIVES/INCONDUCIVE STAFF-PATIENT RATIOS

One of the major problems perceived to be hindering the midwives from completing the partograph according to the set standards was the shortage of midwives leading to a low midwife to patient ratio. This shortage comes about because of inadequate staffing patterns combined with a high patient load. Participants indicated that most of the time one midwife must monitor two or more clients at a time, and this makes it impossible for them to complete all the variables in the partograph according to the requirements. This is evidenced from the quotations below.

'*Now what I'm asking myself is that…I mean it shows that the problem is not the monitoring and recording in the partograph…it shows that the patient ratio is the problem. We can't have the same standard of nurse-patient ratio of 1 to 1 and have the same standard with the patient ratio of 1 to 8 or*

10. We can be marked with the same tool for the ratio of 1 to 1 and that one for 1 to 10. Like that it's a failure on its own from the start.' (P1)

'*I can say maybe it's the work-load, there is staff shortage which I think it's the main-main problem. You'll be very busy and there's no staff to help each other to see that everything is done and completed.' (P2)*

'*On the other hand we don't want to compromise the care of our women, so we are caught in between. Looking at our nurse-patient ratio, it's practically impossible practically it is not possible'. (P3)*

'*Because you'll find that on some days, all those beds are occupied…and we are only two in a shift. So, you'll find that when you are only two like that and attending to delivering mothers, five active mothers, the use of partograph there is compromised.' (P8)*

3.4.3.2. INCONSISTENT AVAILABILITY OF SUPPORT STAFF

The support staff play a pivotal role in relieving the midwives in some of the non-core duties or activities. The midwives reported that there is a shortage of support staff in the labour ward such that there are some shifts that can go without any allocated support staff to assist them with other duties. They cited that the ward has only five support staff who mostly cover day duty and not night duty, therefore they will be compelled to address all the needs of the patients such as providing the meals, thereby compromising the patient care and completion of the partograph.

'*At times we don't have…, they are short-staffed as well. At times there is no one, there won't be anyone, especially during the night. That's where it becomes hectic, at time you've delivered, this patient needs to eat soft porridge, you have to warm it for the patient and bring it…the other things are waiting for you. But if the support system is there, you just call to say give bed so and so, do something…help bed so and so with this and that. But they are short-staffed as well.' (P2)*

'*I think the support staff when they are there they are doing enough. Now the problem comes when they… maybe their work arrangement. You'll find that mostly those support staff, they go up to 1630 hours, like 0730 to 1630…just during the week. And during the weekends and holidays, they are not there, that's their working arrangement.' (P8)*

'*It's unfortunate that it's not a guarantee that we always have them in every shift because they are only, I think they're only 2…2 of them in labour ward. So, they are also not adequate because we find that we can have in a day, morning shift there is no HCA, PM shift there's nobody, night shift if there's nobody. With the orderlies, their scope of practice is limited, unlike the healthcare assistants.' (P11)*

3.4.3.3. STAFF ABSENTEEISM

The participants reported occurrences of staff absenteeism which happened for various reasons. The reasons for absenteeism include sick leave, quarantine, and isolation due to COVID-19, other leave such as emergency leave, maternity leave for the female midwives, and annual leave. The participants said that staff absenteeism was one of the reasons leading to a shortage of staff with resultant compromised documentation during patient care, including partograph non-completion.

'*We also have offs, also sick offs because we are overwhelmed by the work. We are getting more problems of backache, even social issues we have those, some will be on leave, some on maternity leave because we are also ladies we multiply, there are so many factors such that we can't be all the twenty-three available on duty. That's the challenge that we are having.'(P1)*

'*And at times we have some in quarantines and isolation because of COVID, then it becomes more of a problem, like right now we have someone on quarantine and someone on sick leave, another one on maternity leave, its more than five officers who are not on duty for various reasons.'(P1)*

'*The leaves…sick leaves short leaves, end of contracts, annual leaves and maternity leaves. So sometimes its things that really we cannot do much about because it is necessary for people to go on leave, sometimes others are sick and all those other things.'(P10)*

3.4.3.4. INADEQUATE KNOWLEDGE OF MIDWIVES

The participants believed that lack of incentives, recognition and promotion are some of the main reasons for inadequate performance at work, including completion of the partograph. They believed that being a midwife is a speciality that needs to be recognised as such. In addition to that, most of the midwives are seniors who are overdue for promotion. However, they are just treated as any other nurse, leading to demotivation and low morale as shown in the quotations below.

'*I think we need also to be motivated with promotions. Most of the nurses working in maternity are seniors and have been in the same scale for many years without promotions. It demoralises us and we end up just coming to work for the sake of coming.'(P3)*

'*We lack motivation in the labour ward, we really like motivation...There's nothing which is motivating us. We've been in C1 salary scale for a long time but no promotion. We come to work, and we go home, we work, we go home, we don't have any motivation.' (P5)*

'*Ok, the other thing that may be demotivating the midwives in Botswana is that you'll find that a midwife will stay in the same position for so many years. They don't recognize the midwifery part of it, they just take you as a nurse. There are no incentives to motivate the midwives that they are midwives they have an extra qualification. They have post-basic qualification; they are not the same as the single qualified nurses. There's nothing that motivates us.' (P12)*

3.4.3.5. NURSES' NEGATIVE ATTITUDES TOWARDS MIDWIFERY

The midwives mentioned that from their observation, most of the general nurses are not interested in pursuing the midwifery profession. Pursuing midwifery training by the general nurses would relieve the shortage of midwives that are experienced in the labour ward. This causes a lack of or slow improvement in the staffing situation, leading to low performance regarding partograph completion because of the shortage. One of the participants said the nurses prefer other post-basic courses such as eye nursing or psychiatric nursing.

'*Ah, I think they're scared of doing midwifery. They prefer to do psychiatry, because that is where they know that they will sit, some will say they are scared of blood. So only a number of them opt for midwifery.' (P7)*

'*Even now in this shortage this single-qualified nurses don't want to go further training for midwifery, because they believe and think that we are being used we are just volunteering to deliver these women with no salary or any additional incentive that is motivating us to say thank you for doing this, or thank you for your qualification and for doing an extra work. So, they're not motivated and want to go for midwifery, they will rather do eye Nursing, psychiatric nursing, or something else.' (P12)*

3.4.4. MIDWIFE-RELATED BARRIERS

There are other barriers that are directly related to the midwives as the service providers, which contribute to the non-completion of the partograph. They are elaborated on as below.

3.4.4.1. MIDWIFE ACCOUNTABILITY AND RESPONSIBILITY BARRIERS

The level of the midwife's accountability and responsibility can negatively influence their motivation to complete the partograph appropriately. Participants explained that one of the main reasons why the midwives utilised the partograph below the required standard was negligence or less commitment, accountability, and responsibility. This can be due to laziness, non-commitment to work, a culture of not paying attention to detail when one is doing their job. That negative culture is illustrated from the quotations below.

'*Then, I can say here and there maybe just laziness, I don't know really how to say it properly. Someone is just saying "I will..." until the patient is taken to postnatal ward...not that they would be busy.' (P2).*

'*We would have told ourselves that we are busy to the extent that even if we're not busy, we end up now doing things the way we are used to. It now becomes a culture that I have to concentrate on and omissions are made by those factors, but sometimes, even if the ward is stable people tend to ignore these other things, and they don't really complete the partograph according to how it's supposed to be completed.' (P6).*

'*It's only there's some of the things we get too used to them and then it becomes a culture, and then we normalize them and think that it's the normal thing to do.' (P9)*

3.4.4.2. MIDWIFE COMPETENCY BARRIERS

The participants indicated that at times the midwives at the clinics transfer patients with wrongly plotted partographs which leads to difficulties in continuing the same partograph. Midwives assumed that some other midwives are not competent and lack an understanding of how to correctly fill in the partograph. They verbalised that this problem was seen with some midwives both at the hospitals and clinics, probably because of the different training institutions or lack of enough practice especially for the midwives working in the clinics. The midwives explained below that skill incompetency and knowledge gaps were observed as some of the barriers to proper partograph completion.

'*At times you really wonder what was going on, is this really a midwife who wrote here or…because if it's not a midwife they don't normally write on the partograph. But if you are saying he or she is the*

midwife and has written this you start to wonder if this person passed the exam, and how? You start to ask yourself, is it because we are doing it here because we are at the referral centre…or maybe they are not practising enough at the clinics or what, we don't know. But at times we meet somethings which you really wonder what was happening.' (P2)

'*Because we have been trained by different institutions, and we come here to work having been from different institutions, and the people will also be having different ideologies and training on how to complete the partograph.' (P6)*

The other factor hindering proper partograph use would be that if the first person has plotted wrongly on the partograph, it becomes difficult to correct what would already have been done wrong, leading to confusion about where to put the next plotting. Some clients end up with wrong management such as unnecessary caesarean sections guided by the assumption that the labour is not progressing well while the problem is with the plotting on the partograph. This is illicit in the quotation below.

'*But the problem can be the user. That is, us the midwives. Like for example, the first person to open the paragraph if they have made a mistake, their mistake can lead to the patient being mismanaged. For example, early plotting, maybe the first person will say the patient is 4 centimetres. After two hours when I check, I find that the patient is actually in latent phase. So that can lead to the patient being taken for Caesar when is not relevant.' (P7)*

3.4.4.3. MIDWIFE PERCEPTUAL BARRIERS

Some midwives perceived that there are aspects or variables of the partograph which are important such as the cervical dilatation and the foetal heart rate, while others like the intravenous fluids given are deemed less important and time-consuming. This leads to them choosing to complete the variables that they believe are significant and leaving those that they feel are less important or less significant**.** They however acknowledged that all the variables on the partograph were there for a specific purpose and were supposed to be completed**.** The following quotations prove what was said.

'*Partograph use starts from the top of the page down to the end. So, what I can say about my personal experience is that we don't fill it from top to bottom. We sort of fill where we feel it's of interest of can I say where we feel it's of importance. We don't fill it completely as we should. It's not well filled, I wouldn't say we are at 100 per cent, normally don't completely fill it.' (P1)*

'*But others they will say hey, this tool is just there, it's a waste of time, because you need just to plot the dilatation and the foetal heart rate. Others feel is just a waste of time because if the woman is having elevated BP, you know that it's not going to change after an hour.' (P5)*

'*I won't see the need of maybe, let me in quotes use this word to say "wasting my time" writing that because I'll be in a hurry to at least if I can maybe…we tend to say we pick the very important variables like their heart rate and then the vital signs. Other things we tend to omit them, like the fluids that we have given, we don't document. The other interventions…the events, the partograph says is somewhere in the middle that we should document the drugs that we have given, all the fluids, whatever interventions that we have done. Most of the time you'll find that it's blank, it will be blank! But you would have given the patient something, you would have done some interventions for that patient, but most of the time is blank. So, we tend to focus more on the foetal heart rate and the vital signs and the plotting of the cervical dilatation. Those are the core things that we tend to do.' (P6)*

3.4.4.4. MIDWIFE PERSONAL WELLNESS BARRIERS

Health care professionals are more prone to stress and professional burn-out because of being responsible for human lives in their daily duties (Koinis et al. 2015:12). For this study, the midwives believed that their state of wellness plays a major role in their performance. They mentioned that if one is not in a good state of mind they tend not to perform according to the required standards. The midwives said if one is not well either physically, socially, or psychologically, they are prone to forgetfulness which leads to omissions in the documentation. The tiredness that they experience leads to postponement of the documentation on the partograph, and the client will end up being transferred from the labour ward to the postnatal ward with incomplete documentation. Their wellness issues in relation to their performance are illicit in the following quotations obtained during the interviews:

'*A wounded person, sick person, unstable person is bound to make a lot of mistakes. Maybe due to being absent-minded, maybe forgetting something you are supposed to fill and then say ok I will fill it later, then you forget it for good, and the lady is the transferred to postnatal ward, then she is discharged home, whereas you haven't completed all the necessary things that you were supposed to. Some of the partographs you will find that they have gaps, and no one will identify themselves that they have seen that patient. Maybe everything will be filled, and at the end there is no signature or something, but somebody did the work, and they did it and they forgot to sign, because there will be a lot on their mind. You will be having this patient here, then thinking about something at home is something that is going on in your life then it becomes just too much.' (P1)*

'*Then the other thing is that at times the midwife will be tied up, worked out that you are tired, your mind is just tired, and you forget to finish up.' (P2)*

'*The issue is, when you are unstable in your mind you are highly likely to make a lot of errors in everything that you do. Isn't it we know that health is a complete state of physical, mental, and social*

wellbeing and not only the absence of the illness. So that unstable mind will always lead to lack of concentration, therefore leading to omissions and errors. So obviously it is related negatively to completion of the partograph, maybe due to being absent-minded, forgetfulness, or at times postponing the documentation to be done be someone coming for the next shift. You say "ok, the next person will come and complete because as for me, my time has come for knocking off." This will all be to the shortage, exhaustion both physically and mentally, leading to incomplete partographs and mismanagement of the patients or mothers in labour.' (P3)

'*Yeah, that one you can't deny it. If I'm not well, obviously I'm not going to perform at my utmost, so it will lead to some gaps.' (P4)*

'*Yes, the health status I can also relate it with the full completion of the partograph, because some midwives, maybe if she is not feeling well then she will just feel that because there is this shortage, if I don't go to work how are they going to manage? So let me just go to work I will assist where I will manage. Then they will just come here with that ailing body, she'll be here and then forgetting to document everything that they're supposed to document on the partograph because maybe her mind or her body is physically not well.' (P12)*

3.4.5. PARTOGRAPH-RELATED BARRIERS

Some of the barriers associated with partograph completion are perceived to be related to the partograph itself. The barriers identified from the interviews are the frequency at which some variables must be examined and plotted and the unclear completion guidelines, which are discussed below.

3.4.5.1. FREQUENCY OF CHECKING

Some of the participants expressed their concern about the frequency of the clients 'checking. They said some of the variables to be assessed on the client and be recorded on the partograph were unnecessarily frequent, as they believe that there would be a low probability of any changes within a short time.

'*It's a fact that we are not able to fill all of it, isn't it maybe the right time to review it and find out what we can do about it. I'm not saying that some of the variables are not important. The partograph is made in such a way that the foetal heart rate will be checked after 30 minutes as well as the contractions, the BP and pulse after one hour. Are we not down-marking ourselves from how the partograph is? We have set a standard for ourselves which is completely not possible to start with.' (P1)*

'*I don't know because maybe these other variables…imagine checking after every hour. The BP every hour, you know…sometimes it's very difficult. Even to do your urinalysis every hour, you don't even know the significance of doing a urinalysis every hour. (P5)*

3.4.5.2. UNCLEAR COMPLETION GUIDELINES

Participant number 9 *(P9)* asked the researcher some questions regarding some situations that he has experienced and had difficulties understanding what the correct thing to do was. This showed that at times he had some difficulties with recording on the partogram, which may lead to mismanagement of the patient:

'You'll find that the client was monitored, let's say at the clinic. And then, let me say was admitted at the clinic around 1:00PM, and then this client will be due at 15:00 hours, then by 15:00 hours they will be on the way to the hospital. So, my question is...if we receive the patient at four, how are we going to continue with the partograph? Do we skip and go to four, do we leave this other space blank where the patient was on transit?' (P 9)

'*The other thing you'll find that the client was plotted five centimetres, and then when I check the patient maybe she's still 3 centimetres, not yet in active phase. ..So, my question is, sometimes when the patient comes here, we close the photograph if it's like that and then we send the patient back to antenatal wards. So, I want to know if it's the right thing to do.' (P9)*

3.5. THEME 2: FACILITATORS TO PARTOGRAPH COMPLETION

A facilitator is a person or thing that makes an action to be easy or easier (Oxford Dictionary of English, 2010). For this study, facilitators will be enablers that the midwives experience to be available or in place to make partograph completion feasible or easy for them to achieve.

3.5.1. HUMAN RESOURCE-RELATED FACILITATORS

These are facilitators that were perceived to have a direct relationship with the human resources that were available at the study site which is the labour ward.

3.5.1.1. SUFFICIENT MIDWIVES

The availability of sufficient midwives in relation to the patient's ratio was perceived to be facilitating adequate partograph completion. This was experienced only on days that were less busy, where there would be a smaller number of patients that would be balancing with the number of midwives available on duty at that time.

'…yesterday we had two midwives in the delivery unit, so if we have one client like that, the partograph will be well filled because we would be having much time to do everything for that client.' (P1)

3.5.1.2. AVAILABILITY OF SUPPORT STAFF

The presence of support staff in the labour ward was said to be one factor that could facilitate partograph completion. The support staff usually relieve the midwives from the extra duties like taking care of the new-born baby, checking the vital signs, giving the new mother soft porridge, or cleaning the instruments. These activities were normally done by the midwives if the support staff are not available in the shift and were said to be taking much of the midwives' time hindering from fully attending to the patient and documenting well in the partograph. The midwives verbalised that the availability of support staff normally helps improve their performance pertaining to partograph completion.

'Support staff we normally have one or a maximum of two in a shift. We will have a cleaner, those who are helping with babies, giving mothers porridge, it can either be a hospital orderly or a health care assistant.' (P4)

'During the day shift, isn't it you'll find that mostly we have other supporting staff, so they can assist us doing other duties, we can delegate other duties to them then we can concentrate on labour and delivery… the partograph.' (P8).

'During the day shifts the Health Care Assistants will be there and they will be partaking other duties like feeding the clients and taking vital signs.' (P9)

3.5.2. MIDWIFE RELATED FACILITATORS

Other facilitators related to partograph completion are directly related to the way that the midwives perceive their job, whether they value its importance to them and the client, their commitment, as well as the teamwork, making the work lighter.

3.5.2.1. COMMITMENT TO THE MIDWIFERY PROFESSION

The midwives mentioned that though there are challenges, they remain committed to their profession and get satisfaction from good midwifery practice and satisfactory outcomes for both the mother and the baby. They said that the desire for good outcomes motivates them to use the partograph correctly as it guides them to intervene on time in case the labour does not progress well.

'I just like it…I like meeting those different situations, and at the end of the day if I manage it well when I go home, I feel I'm a real midwife.' (P4)

'*Yes, women who are giving a life, to assist a woman who is giving a life you knock off happy after conducting a successful delivery, having bouncing baby boys and girls. You go home happy because you have helped a woman to bring life to this earth.' (P12)*

3.5.2.2. TEAMWORK

Mao and Woolley (2016: 933) emphasised the importance of teamwork by saying that teams often have the potential to achieve more results as opposed to any person on their own. They say that when teams are effective, they do protect patients from risks to get better outcomes, as well as creating a more positive, appealing, and resilient workplace (Rosen et al. 2018:14).

The midwives said they usually work as a team when managing their patients, and this brings better outcomes as the workload will be equally divided amongst all of them. They mentioned that this strategy works better by improving their performance on partograph completion.

'*Usually you'll find that the midwives who are on that shifts we work together. So, if I'm to conduct a delivery, the other patient I'll be monitoring maybe will still be far, then the other person who will have finished delivering their patient will come and chip in, assisting. It's not like we'll say this is your patient you will do it with her until you finish, we help each other.' (P4)*

3.5.3. SUPPORT RELATED FACILITATORS

When managerial efforts are focused on supporting employees and encouraging them to perform well, this will stimulate their positive perceptions of organisational support and strengthen the quality of care that they offer to the patients (Ogbonnaya & Babalola 2020:1836). This statement supports the need for the managers to continually give support to the employees so that they may produce the desired results.

3.5.3.1. MANAGERIAL SUPPORT RELATED FACILITATORS

The managers of health care facilities should strengthen workplace support policies and encourage positive views regarding support towards their employees. Ogbonnaya and Babalola (2020:1834) state several studies have documented the role of managerial support in shaping favourable employees' views about the organisation as well as their behaviour at work. Participants number 4 (P4) and number 8 (P8) mentioned that their managers at work contribute positively to their performance by giving them the support that they need, by motivating them to achieve the desired results related to partograph completion though they experience some constraints.

'*So, I'll say that they are supportive, not knowing whether we will get additional staff or what, but at least they are supporting us. So, we believe that even them they will take it up to their supervisors there. With their feedback, we'll see what will happen.' (P4).*

'*I think they are doing their best, especially our own management, because you'll find that nowadays they take more people for midwifery, they recommend more people to do midwifery. I think they are looking at the statistics and the shortages that we are having. And every now and then, they do come and support us, they check on us. So that at least it's something, it's kind of an emotional support to say though you are overwhelmed, and we are with you...it's something.' (P 8).*

3.5.4. PARTOGRAPH RELATED FACILITATORS

Having the motivation to use the partograph can facilitate its completion. The participants stated that partographs helped them understand labour progression and identify risks during labour and childbirth. The main perceived advantage was that it captures and present all vital information in one place for easy accessibility and decision making. It also guides with a timely referral of the client to the doctor in cases of complications.

3.5.4.1. GUIDES WITH TIMELY DECISION MAKING AND TIMELY INTERVENTIONS

The participants said that when the partograph is completed correctly, it guides with identification of abnormal labour, appropriate decision making and timely intervention. Referral to the doctor is also dependent on the correct interpretation of the plotting. Though there are challenges with its completion, the participants had the motivation to use and complete the partograph because of the reasons stated above, and this is evidenced through their quotations below:

'*Partograph…to me is a useful tool because if you use it correctly, you monitor the foetal heart, you monitor the contractions and all those. If we are to follow it the way it is, then we can be able to see when the woman is not progressing well or whether there are any barriers, when it calls for interventions. If we just record everything accordingly, it will tell us that now you have to intervene.' (P4)*

'*Partograph is a very relevant tool that we should use in labour and delivery. Why I'm saying it is relevant is because the partograph is the one that shows you that...it's a tool that we use to interpret how the mother is doing during labour and delivery. Any anomalies that can come, you need to be seen on the partograph. If the mother is just progressing well, still the partograph will show you, so, therefore, it is a very, very, very important tool that we should use.' (P8)*

'*Yeah...! Like I said about the importance of the partograph before, this tool really it should be used, and when used properly it can guide you on how to manage the patients…' (P8)*

'*OK for myself as an individual I will tell you that I can plot this paragraph correctly, yes… using this, because isn't it when I plot monitoring the woman, me as myself, I look at the dilation, the descent, is the patient in the alert line, is the patient going well or she crossed the alert line or the patient has crossed the action line. Then you'll have to do something to help the patient. You have to call the doctor to come and assist the patient or review the patient. So, I would say I use it properly.' (P 12)*

3.5.4.2. EASY TO UNDERSTAND

The participants said one other motivating factor to partograph completion was that it is a straightforward tool that is easy to understand, and this makes labour monitoring an easy task. The participants mentioned that if the patient is not progressing well, the tool guides them on what to do to prevent complications, and this comes as a positive factor toward its completion.

'*I'll say the partograph makes work very easy, 'cause it tells you what you're going to monitor for the foetal wellbeing, and what you're going to monitor for maternal wellbeing, and even the actions that you have to do. It gives you even the interventions. When you know that the patient is not progressing well, what can you do…So it's an easy tool to use.' (P 7)*

'*But apart from the hectic shift, if the ward is not busy filling the partograph is never a problem or difficult. All the variables there are easily understandable and is easy to follow and fill in the graph.' (P 11)*

3.6. RECOMMENDATIONS FOR PARTOGRAPH COMPLETION

Several recommendations were made that were meant to oppose the different barriers to partograph completion and to reinforce the facilitators that are seen to enhance correct and adequate partograph completion. The recommendations mentioned by the participants relate to human resources, the health care system, and staff welfare.

3.6.1. HUMAN RESOURCE-RELATED RECOMMENDATIONS

Human resource-related recommendations that were identified are those related to allocation and rotation of midwives among the three maternity units which are the labour ward, antenatal ward, and postnatal ward. This encompasses the allocation and utilisation of the general nurses for duties that they may have the capacity to perform in the maternity units.

3.6.1.1. RECOMMENDATIONS FOR HUMAN RESOURCES ALLOCATION AND ROTATION

The midwives recommended that the general nurses could be allocated to the labour ward or other maternity units to assist with other non-midwifery duties that they can do such as checking the vital signs, giving medications, taking care of the babies, among others. They mentioned that alternatively, the general nurses may be allocated to antenatal and post-natal wards, so that more midwives may be

deployed to the labour ward. The participants also recommended the rotation of midwives working in the hospital with those in the clinics for both to experience what happens in either setting to enhance the skills for both parties.

The other recommendation was to allocate the staff in the labour ward admission area as it is a busy area taking most of the midwives' work time, and it is currently being managed by the same limited staff working in the labour ward. The recommendations were extracted from the quotations below:

'*The other solution that may help is if maybe general nurses could also be allocated to labour ward so that they may assist with other duties like checking vital signs, taking care of the baby; because at general nursing we were taught care of the new-born; injections and the like. It may even motivate those nurses to maybe consider going to further their studies and train as midwives.' (P1)*

'*I'm actually advocating for that so that we can rotate, the nurses should rotate to experience what is in the clinic and then come and experience what is in the hospital.' (P 6)*

'*But my suggestion like I said before, maybe if we can take out the admission part from labour ward, and then you put it aside on its own, then it's staffed with its own staff, I think it will assist us. Truly, most of the time that's the area that is taking most of the time, because you are admitting, assessing and there will be a queue outside there.' (P 8)*

'*Yes, there can be something that can be done to improve this shortage in Nyangabgwe or in labour ward because we're talking about labour ward. You'll find that as midwives here, we are allocated according to the wards, antenatal or post-natal wards and labour wards. So, me, what I can say, I can say that maybe those registered nurses who can maybe be allocated in OBGY, maybe they can be allocated more in postnatal ward and antenatal. And then maybe more midwives be brought to labour ward.' (P12)*

3.6.1.2. RECOMMENDATIONS FOR HUMAN RESOURCES PROVISION (MIDWIVES)

The staffing in the labour ward was said to be inconsistent, depending on the availability or absence of the midwives for various reasons. Most of the participants recommended that the number of available midwives in the labour ward is increased. The participants also proposed a consistent minimum of four midwives for each shift to enable them to function. They also recommended an increase of at least two or three midwives to increase the total number of available midwives, citing that the increase would have a positive influence by improving the midwife to patient ratio, thereby improving their performance to avoid incomplete partographs and mismanagement of labour.

'*So, if they can find an additional number of midwives to at least add to what we have, at least two or three midwives to labour ward because labour ward is a critical area, …not saying that the other wards they're not busy or they don't need. At least we can avoid mismanagement of labour where possible.' (P4)*

'*The staffing issue, we need more staffing. We need more staffing…that one I want to really emphasise about it. Labour ward is a busy ward with emergency cases. So, we need staffing.' (P 5)*

'*So, the solution in this case would be to increase our human resources, more midwives so that the ratio for the nurse to the patient becomes a reasonable one in order for us to be able to do things the right way.' (P11)*

3.6.1.3. RECOMMENDATIONS FOR HUMAN RESOURCES PROVISION (SUPPORT STAFF)

The support staff play a pivotal towards improving the performance of the core staff in health care. The midwives said the availability of support staff relieves them from some of the non-core duties, allowing them to focus on the labouring woman and the baby. They said that the Health Care Assistants would check the vital signs, provide the clients with some meals, and perform the COVID-19 test on the clients, whereas hospital orderlies would assist with cleaning and making the beds and cleaning the instruments. They, therefore, recommended that it is important for the support staff to be always available and their current number to be increased so that they can cover all the shifts.

'*Like we were saying, if maybe their number can be increased, especially the healthcare assistants, because they know how to check vital signs. I believe they can help a lot. And even during the night shift, isn't it that if maybe we don't have a hospital orderly, now it will be the midwife running around to give a patient soft porridge and to clean the packs and all those things. Yes…we will be running around with that soft porridge. So, they do help us a lot if they're around.' (P5)*

'*I think they should hire more support staff.' (P9)*

'*If it was possible to have at least one of them every shift, it will be so helpful'. (P11)*

'*I'll say they also need to be increased so that they can help in COVID testing, in the cleaning of beds, cleaning the instruments that we have used, and giving the woman soft porridge after delivery because that can go a long way assisting us as most of the times, you'll find that the midwife will be doing everything and with less assistance from others. If they can be attended to those things and the midwife focuses on the woman and the baby, it's just a thought.' (P12)*

3.6.2. HEALTHCARE SYSTEM-RELATED RECOMMENDATIONS

The health care system recommendations focus on the processes involved when managing the clients. Those extracted from the interviews related to the health care system utilisation, health care user education, recommendations to address night shift barriers, as well as recommendations to promote midwifery training which are discussed below.

3.6.2.1. RECOMMENDATIONS FOR HEALTH CARE SYSTEM UTILISATION

The midwives recommended that the health facility managers should work on reinforcing those clients without any complications and should be assisted at the clinics since they observed a tendency by the midwives working in the clinics to refer all the clients to the referral hospital. They recommended that the Ministry of Health and Wellness (MoHW) should also play a part in ensuring decongestion of the referral hospital by reinforcing effective utilisation of the available maternity clinics through written policies and directives, as those facilities are currently being under-utilised. Another issue of concern is the labour ward admission area being run under the labour ward. The recommendation was that it should be separated and have its own staffing so that the labour ward staff could focus on managing labour and delivery, and not triaging as it is in the current situation.

'*I think the clinics around…I don't know what the management can do to talk to them so that they can deliver those patients. Not to bring each and every patient here for no apparent reason really.' (P2)*

'*Maybe if a voice comes from the ministry there, maybe they would make these ones not to fight at the ground...Because if Nyangabgwe can then say no...we want those patients to deliver at Area W. The DHMT would have their own reason, they will not take it. So, it becomes like a personal issue.' (P2)*

'*So, if it was separate and having his own staffing to run as a clinic, it would be better; so that we don't have that other stretch in need of a midwife to attend to the admissions department, of which some are not even in labour…so that maybe we would just face the labour room women with that little staffing. But usually, we have a doctor in labour with most of the time and then we also have to allocate a midwife there in that admission area. So, if there are only two midwives who are working there, because usually it runs throughout the day and the night; morning shift, afternoon, and night, it also calls for more staffing.' (P4)*

'*You may find that some could have been managed at a primary hospital, or could have been managed at a district hospital. And then we also have, particularly in Francistown, we have Greater Francistown DHMT, which has clinics that are running 24 hours, with maternity services. Yes…and maybe if we can*

reduce some of the less complicated cases or maybe those that are not complicated, because we are attending to normal deliveries here, maybe those normal deliveries can go to those clinics with maternity, so that they reduce the work overload.' (P8)

'*Yeah, what I think can be done in a referral hospital like Nyangabgwe, we have to take patients who really need to be in Nyangabgwe like the high-risk patients who really need to deliver in a referral hospital, not every patient who comes or who feels that they want to deliver in Nyangabgwe, not patients who just feel that they want to come here and then they drop in here. Yeah, that on its own it will reduce the workload so that we can be able to do things properly.' (P12)*

3.6.2.2. RECOMMENDATIONS FOR HEALTH CARE USER EDUCATION

The participants mentioned it was evident that the clients were not aware of the role of and the level of care that the referral hospital has to provide because at times they come on their own without being referred. They recommended that during the antenatal care visits, health care providers at the clinics should educate the clients on how to optimally utilise the health care services in a balanced manner without underutilising the clinics and on the contrary overwhelming the referral hospital. The influential people in the community such as community leaders and authorities should also play a role in making clients understand and use the health care facilities according to the level of service that is provided at each of the different levels.

'*Another thing will be to educate the clients at antenatal care so that they deliver at the clinics and only be brought here on referral, which is not happening now.' (P3)*

'*The midwives at the clinics they have to educate the clients. They should educate them to say because this is your second baby, you are going to deliver here in the clinic, rather than just leaving them.' (P9)*

'*I don't know whether to say leaders, the authorities should sensitise the community and make it clear to them that they can use the clinics with maternity as long as there are no complications with their pregnancy, because this could greatly reduce or help us reduce the workload here... midwife there having to attend to one or zero patient at night while in Nyangabgwe it will be full. So, I think maybe they should make the community aware that they can also use the clinic with maternity. They should only come here strictly by referral…' (P11)*

3.6.2.3. RECOMMENDATIONS TO ADDRESS NIGHT SHIFT BARRIERS

The night shift was cited as the most unpleasant shift as it is long (12 hours) and normally the busiest. The participants mentioned that it is a shift when most errors occur due to the high workload and exhaustion of the midwives. The midwives as the participants, therefore, recommended that the night shift hours should be reduced to eight hours like the other shifts to prevent the exhaustion that they experience. They proposed that the shift should start at either 10 PM or 11 PM. The midwives also recommended that the number of staff on night duty should be increased from four to five. The message is illicit in the quotations below:

'*To cut those for extra hours for the night shift to make it to be 8 hours like the other shifts. Yeah, you know that sometimes you try to fix the other side and then there are other challenges. The other challenges related to that you find that other people will be citing that now it means I will be coming to work at around 10 or 11 at night and it's not safe. Even those who will be knocking off…isn't it for you to make hours, you need to cut those four hours. Then they say they'll be feeling scared, they'll be no transport and then you find that it becomes impossible to implement that. There are no taxis, there's no hospital transport.' (P4)*

'*Yeah, if we can do that, it will be better, because for the nights we have changed from having three now we're having four midwives at night, but still it is still very hectic. So maybe if we can have five, it will do.' (P7)*

'*I think we should try to make it to be 8 hours, instead of it starting at 7:30 PM, maybe should start at 10 PM. Like to make it as the shift of the day, which is 8 hours, because…hey! The night is a killer. We should try the 10 PM one and see how it goes, because when you come in at 10 you will be a bit fresh so we can be able to do things properly up until in the morning, unlike when you started working around 7:30 in the evening.' (P11)*

3.6.2.4. RECOMMENDATIONS TO PROMOTE MIDWIFERY TRAINING

General nurses must be motivated to pursue further studies in midwifery. This was said by the participants who thought that most general nurses are not interested to further their studies to become midwives, as they said midwifery comes with a lot of work without any special remuneration. The participants felt that another way of increasing the number of midwives would be to change the policy to make it such that after completing the general nursing course, the nurses should straight away continue with the midwifery training. The current situation is as such that the nurses would graduate in general nursing, then they are employed to practice, and then if interested, they may opt to go for further studies in midwifery.

'*Maybe there is also a need to motivate more general nurses to go for post-basic training in midwifery because it looks like most of them are not interested in midwifery, they say it's a lot of work but no remuneration.' (P3)*

'*I think maybe if midwifery can also be…maybe when somebody goes to train for general nursing, midwifery can also be included once and for all so that you know that everybody who is a nurse, they will also be midwives. Not for a small number of nurses who are given letters to go for school. Like now, maybe we are expecting only two or one midwives from school that are supposed to finish this May. So, what are we going to do with the difference of 1? Maybe they're going to go all of them to antenatal because there is also a shortage there.' (P7)*

'*I think the management should advocate for more nurses to be trained on midwifery. The slots should be much open as much as it can, so that we can have enough midwives.' (P10)*

3.6.3. STAFF WELFARE-RELATED RECOMMENDATIONS

Staff welfare-related recommendations are those recommendations aimed at addressing issues related to the physical, emotional, and social wellbeing of the staff. The participants felt that there are interventions that can be done to relieve them from the burden they are carrying which will, in turn, facilitate partograph completion.

3.6.3.1. RECOMMENDATIONS FOR SUPPORT OF MIDWIVES

The midwives said that they need emotional support such as having someone to talk to in times when they are distressed by either work situations or social life. They mentioned that talking to someone regarding what could be troubling them can minimise the stress levels and enhance their performance. They recommended that their managers should assist them in resolving difficult issues, escalate those that they cannot solve, as necessary. Issues related to the hospital midwives' working relationship with those at the clinics should be discussed and resolved. Below are some of the participants' sentiments:

'You will feel that you need somewhere to off-load, then some of the things you will do them right.' (P1)

'Mmmmh…! I think the best thing that can be done for us is to organise psychologic counselling for the midwives and other staff. That is the first thing that can help stabilise our sanity for now. Really with COVID our problems have increased, and we need support so as to get motivation to come to work.' (P4)

'Yes, it's important for the managers to know them coming from us directly, because I know that they do meet with their management, and the management also they meet with the ministry that side, and those issues can be escalated to the ministry.' (P5)

'Remember our setting here we are a referral hospital, and these other clinics that I'm talking about they are under Greater-Francistown DHMT. So Greater-Francistown DHMT and Nyangabgwe Referral Hospital are two settings that are managed differently. Our management has to meet with Greater Francistown management, so that they can see how they can help us in solving this situation.' (P8)

3.6.3.2. RECOMMENDATIONS FOR STAFF MOTIVATION

The midwives were worried about the lack of progression in their careers which was a demotivating factor. They verbalised that they need recognition, progression, promotions, and some incentives such as extra offs that can give them motivation. They mentioned that they need to see that their managers are with them through all good or bad situations, to appreciate how busy they are and to embrace their efforts and not only to go to them when there are problems. The following quotes evidence the above.

'*We need to find ourselves making some progression in our career and with the hard and important work that we are doing, bringing lives to this world. So, we need someone who can point this out to the authorities so that they may understand it better.' (P3)*

'*What I want to emphasise on is about the professional progression. We need promotions.' (P3)*

'*If at least they could even think of motivating us with extra offs or sometimes just once in a while to say maybe this month you'll take two extra offs, it would be one way of motivating us, it will be something because now with this promotion we have given up.' (P5)*

'*I think the best thing that the management can do is to be with us every day and appreciate whatever you do on daily basis. They just come or pass through the ward, they see how you are working, how the ward is, how busy you are, or how short-staffed you are on that day, and they should appreciate it, what we're doing not to wait for when there is a problem, that is when we are going to see them. Yeah…!' (P10)*

Motivation in the workplace is an integral aspect to quality service provision. Johnson (2020:7) says '…when employees are motivated, they exert greater levels of effort, time and persistence to meet organisational goals.'

3.7. DISCUSSION

3.7.1. BARRIERS TO PARTOGRAPH COMPLETION BY MIDWIVES

From the data collected, the midwives working in the labour ward in a referral hospital in Botswana face various challenges or barriers to partograph completion. The midwives said that those barriers prevented them from completing the partograph as indicated in the maternal care guidelines (The Safe Motherhood Initiative Guidelines, 2010:25). The identified barriers to partograph completion are health care system barriers, organisational barriers, human resource barriers, and midwife related barriers.

3.7.1.1. HEALTH CARE SYSTEM BARRIERS

Mukisa et al. (2019:7) conducted a study titled 'The level of Partograph completion and Health care workers perspectives on its use in Mulago National Referral and Teaching Hospital' in Uganda and found the level of partograph completion in that facility was low. The study findings included the time needed to document, an overwhelming workload, a high patient load in the hospital, congestion in the hospital, and lack of understanding of the partograph itself were among the challenges identified as barriers to partograph documentation and utilisation. These challenges were also identified in this study. The researchers recommended the need for training on partograph use prior to deployment of midwives together with in-service training to reinforce partograph utilisation or completion in the healthcare settings (Mukisa et al. 2019:7).

3.7.1.2. ORGANISATIONAL BARRIERS

The organisational barriers identified to hinder partograph completion included inconducive work-shifts, unmanageable workload, and inadequate managerial support. A study by Hagos, Teka and Degu (2020) revealed that lack of supervision and the number of midwives in a shift had a negative effect on the partograph completion (Hagos, Teka and Degu, 2020:5). High workload leading to burn-out has also been identified as one of the major barriers to partograph completion by the health care providers. In a study by Muriithi and Kariuki (2020), 88% of nurses reported burn-out in their work because of high workload, extended hours of work and lack of support in the workplace (Muriithi & Kariuki, 2020:12). Role ambiguity and conflict were also some of the reasons the health care workers experienced burn-out and stress, leading to under-performance.

3.7.1.3. HUMAN RESOURCE BARRIERS

In many studies, the shortage of staff was reflected as one of the major challenges for midwives to monitor pregnant women in labour using the partograph. Shokane, Thopola, Jali, Kgole and Mamogobo (2013:166) stated in their study that the participants indicated that they experienced a shortage in the labour wards making it difficult for them to provide quality midwifery care through the utilization of the partograph. A quantitative study by Bazirete, Mbombo and Adejumo (2017:1) conducted in Rwamagana health facilities in the eastern province of Rwanda also revealed a shortage of staff per shift in the labour ward. Bazirete et al. (2017:1) in her study stated most respondents (45%) claimed to be working as one person per shift, whereas 33.6 % worked with staffing of two, 20.6% working with three, and the minority confirmed that they worked with four per shift. The variation confirms that usually there is a shortage of staff in the health care facilities. In another study by Bedada, Huluka, Bulto et al (2020) in Ethiopia, the shortage of health care personnel was evident as one of the barriers to partograph completion (Bedada, et al. 2020:7). From these studies, it is visible that the shortage of health care providers, especially midwives, is a major hindrance to partograph completion.

Contrary to the above studies, Bazirete et al. (2017:1) did not find a relation regarding partograph use and the number of staff per shift or to the shortage of nurses and midwives who were attending to pregnant women in labour (Bazirete, Mbombo & Adejumo, 2017:5). However, it was evident from this study that the shortage of staff has an influence on the completion of the partograph by the midwives.

The negative attitude towards partograph use, lack of awareness, knowledge, training, failure to appreciate the partograph, regarding it as complicated and time-consuming rather than assisting good practice are some reasons that may hinder its completion.

3.7.1.4. MIDWIFE RELATED BARRIERS

Lack of accountability and responsibility, incompetency, negative perception, and lack of personal wellness were some limitations found to hinder partograph completion. The limited documentation leading to non-completion of partograph results in subsequent patient mismanagement and late or non-identification of complications to both the mother in labour and to the baby. This may result in maternal, peri-partum and neonatal mortalities which are reported to be high especially in Sub-Saharan Africa. Challenges such as lack of time and lack of personnel were cited as some of the reasons for these omissions (Brits et al 2020:5). Lack of supervision, negative attitude towards partograph use, and additional time-consuming duties being done by the already inadequate staff were identified as factors affecting partograph utilization (Bedada et al. 2020:7).

Hagos, Teka and Degu (2017:6) identified a negative attitude and lack of training of midwives as one of the barriers to partograph completion, supporting the findings by Bedada et al. (2020), and which is

consistent with the findings from this study. With a lack of commitment, lack of motivation, unfavourable attitudes, it is expected that adequate partograph use will never be achieved, and this is consistent with the findings of this study as it was found in what the participants said.

3.7.1.5. PARTOGRAPH RELATED BARRIERS

Several studies that looked at the quality of partograph completion reported a wide range of sub-optimal recording of components related to patient care that is necessary to guide decision making. Brits et al. (2020:6) stated although the majority of the partographs that were assessed in their study scored more than 75% for completion, the components that can easily aid identification of foetal distress, the identification of unsatisfactory maternal wellbeing, and the poor progress of labour were lacking. The findings of a study by Yisma, Dessalegn, Astatkie and Fesseha (2013:6) reflected poor management of labour due to inappropriate completion of the partograph. Ollerhead and Osrin (2014:6) stated low- and middle-income countries are the ones that mostly do not utilise or complete the partograph, as was found to be the case in this study. If the midwives do not record on partographs to inform evidence-based decision making, the care provided to the woman and the unborn baby is prone to be sub-standard. Zelellw and Tegegne (2018:201) stated that the main reasons for underutilisation of the partograph were among others skill inconsistency, which implied at times the midwives are not knowledgeable about how to complete the partograph, or the completion guidelines would be unclear to them.

3.7.2. FACILITATORS TO PARTOGRAPH COMPLETION BY MIDWIVES

Most of the midwives were willing to use and complete the partograph accordingly. They mentioned some factors that would motivate and enhance them to complete the partograph according to the requirements. These facilitators are human resource-related, midwife specific facilitators, support related and partograph related facilitators.

3.7.2.1. HUMAN RESOURCE-RELATED FACILITATORS

Human resources in health care is a vital aspect of quality service provision. Having adequate staff was reported as a factor that could improve the use of the partograph among the midwives, because with the increased number of workers, there will be a decrease in the work overload being experienced, and there will be provision of quality care (Bedada et al. 2020:7). The participants in this study reported the shortage of midwives and support staff lead to a lack of attention to the necessary details that will

enable correct partograph completion. To counteract the problem, human resources should be provided in adequate numbers to match the available workload, as was revealed in this study.

3.7.2.2. MIDWIFE RELATED FACILITATORS

The results of a study conducted in Bangladesh titled 'A cross-sectional study of partograph utilization as a decision-making tool for referral of abnormal labour in primary health care facilities of Bangladesh,' revealed that health workers included in the study voiced out their positive attitude towards utilising the partographs for monitoring and documentation of the progress of labour (Khan et al. 2018:12). This shows to support the fact the midwives' willingness to document on the partograph can be one way of facilitating its completion.

Opiah, Ofi, Essien and Monjok (2012:128) conducted a study on knowledge and utilisation of the partogram among midwives in the Niger Delta region of Nigeria, and they found that there is a significant relationship between the years of experience of midwives and their use of the partograph. On the contrary, in this study, the participants were midwives of different years of experience ranging from two years to eighteen years, and from the interviews, there was no evidence that the years of experience and partograph completion were related. In this study, the attitudes of the health care workers regarding the completion of the partograph were generally positive. Commitment to the midwifery profession and teamwork were mentioned as some factors facilitating partograph completion.

3.7.2.3. SUPPORT RELATED FACILITATORS

Some of the factors that were assumed to promote better partograph use and completion are support by both peers and leaders, and available quality assurance systems. A supportive work environment from colleagues and leaders, with clear quality assurance systems, promoted partograph use and completion (Ollerhead & Osrin, 2014:5). Yazbek and Jomeen (2019:11) support this statement with their study conducted in a private hospital in South Africa which revealed that knowledge of the partograph among the midwives was relatively good, relating it to the supportive organisational policy which promoted the use of the partogram (partograph), complemented with a manageable workload.

Evidence from other studies reveals that midwives in health facilities that were adequately supervised and mentored were more likely to utilise the partograph than those who were not supervised. A study by Ayenew and Zewdu (2020) revealed that obstetric care providers who were adequately supervised were more likely to utilise the partograph than their counterparts who were less or not supervised. The researchers stated the probable reason in supervision that facilitated the completion of the partograph may be the availability of clear programs to follow, mentorship, and support of the care providers (Ayenew & Zewdu, 2020:9). This implies that supportive supervision is the key determinant to better

performance, as there would be support, teaching, discussions, and guidance in relation to the midwifery practice within the health care facilities (Hagos, Teka & Degu, 2020:7). These statements merge well with the findings from this study where the participants mentioned that they need regular supervision and support from their supervisors to raise their morale and improve their performance.

3.7.2.4. PARTOGRAPH RELATED FACILITATORS

Most of the participants believed that the partograph is beneficial for correctly managing the women in labour, as it could facilitate the identification of problems such as poor progress of labour and compromised well-being of the foetus. In a study conducted by Brits et al. (2020), the researchers said that there was a positive attitude towards the use of partograph though there were challenges such as time constraints and lack of personnel. The researchers mentioned that emphasis on the correct documentation on the partograph at times led to the care providers not filling in the partograph at the correct times or having to correct their errors and gaps retrospectively (Brits et al. 2020:5), and this correlated with the findings of this study.

The midwives mentioned that the partograph guides timely interventions, decision making, and it is easy to understand. From the study done by Bedada et al. (2020:6), it was established that the participants who did not regard the plotting on the partograph as an additional time-consuming task were the most likely to use the partograph than their counterparts. These were the factors that motivated them to utilise and complete it accordingly.

3.7.3. RECOMMENDATION FOR PARTOGRAPH COMPLETION BY MIDWIVES

From this study, it was evident that the barriers to partograph completion outweighed the facilitators, hence the overall partograph completion was below the required 80 per cent, which is the overall performance requirement in the Botswana national health quality standards (2014). To counteract or address the barriers to partograph completion, the midwives had some recommendations that they believe can aid with or facilitate partograph completion. The recommendations were human resource-related, health care system-related and staff welfare-related recommendations. And some of them are revealed in the following statements from previous studies on partograph use.

3.7.3.1. HUMAN RESOURCE-RELATED RECOMMENDATIONS

Ayenew and Zewdu (2020:9) recommended supportive supervision, basic Emergency Obstetric and Newborn Care (EMONC) training, in-service training on partograph use and promoting the midwifery profession as some of the facilitators that may increase the use and completion of the partograph.

In support of the above recommendation by Ayenew and Zewdu (2020), Brits et al. (2020) stated regular training and mentoring on partograph completion could be a step to improving partograph use (Brits et al. 2020:6). Bedada et al. (2020:7) in addition said that having adequate health care personnel, supportive supervision by senior care providers, as well as on the job training on partograph completion are necessary and facilitated the likelihood of partograph completion three times more (Bedada et al. 2020:7). The necessity for training had previously been identified by Bazirete et al. (2017) in their study as they concluded by saying that there was a need for urgent steps to improve the knowledge of nurses and midwives on the partograph through training and seminars, to maximise proper use of this tool (Bazirete et al.2017:6).

These findings translate to the fact that health care providers should undergo regular training, mentorship and be empowered. In addition to the regular training, it is important to deploy adequate numbers of obstetric care providers (both midwives and support staff) to maternity units based on the available caseloads, so that correct partograph completion may be achieved.

3.7.3.2. HEALTH CARE SYSTEM-RELATED RECOMMENDATIONS

Health care systems should make deliberate moves to educate the health care facility users about proper utilisation of those facilities, to optimise utilisation of the lower-level facilities and not to congest the higher level of referral facilities. All health care facilities have a responsibility to ensure that they collaborate and communicate effectively so that they know and appreciate the challenges from both ends.

After finding out that the overall prevalence of partograph completion was low among obstetric care providers in Ethiopia, Ayenew and Zewdu (2020:9) in their study recommended effective utilisation of the knowledge from the obstetric care providers, refresher training, as well as return demonstrations, supportive supervision, and auditing of the partograph by trained supervisors. Finally, Opoku and Nguah (2015:6) in their study advised that the health care workers should ensure that they document the findings identified from the patients according to the available standard protocols, as appropriate partograph completion is vital in identifying abnormal progress of labour and applying the relevant management of the clients in labour.

In-service training is an important aspect of continuous on the job training that may facilitate the partograph use and motivate the health care providers for continued and consistent use. The health care facilities should ensure that they enforce continuous in-service training, adherence to available standards, as well as monitoring and evaluation of the partograph use.

3.7.3.3. STAFF WELFARE RELATED RECOMMENDATIONS

Nurse managers should be equipped with effective leadership skills and the necessary requirements that are relevant to the environment that they work in, to help them lead their subordinates effectively (Chipeta, Bradley, Chimwaza-Manda & McAuliffe, 2016:5). This will improve the healthcare providers' job satisfaction as well as staff retention and will also ensure efficiency in the delivery of health care (Chipeta et al. 2016:5).

A challenging work environment is common in almost all health-care settings. These challenging environments require the leaders to make a positive difference to relationships at work by being motivational, rather than a criticising and belittling approach to the staff that they supervise. A study by Merriel et al. (2021) concluded that leaders should lead by example and develop a generation of excellent clinical leaders who would provide a basis for a change in the right direction within the health system (Merriel et al. 2021:8).

The provision of high-quality health care is dependent on the efforts to improve and develop the health service leadership. It is important to invest in transformational leadership training for nurse managers, so that they may be skilled enough to mentor and support those who work under them, and this may eventually improve the working relationships and the quality of health care.

3.8. SUMMARY

Chapter 3 focused on analysing the data collected from the participants, being the midwives working in the labour ward in a referral hospital in Botswana, who were registered with the Nursing and Midwifery Council of Botswana. The participants were of different ages and gender, depending on their willingness to participate in the study. The information as relayed by the participants was dissected into themes, categories, and sub-categories according to their views and experiences as discussed in this chapter and were further discussed towards the end of the chapter, is related to the available literature. In Chapter 4, the researcher concludes the study and looks at the strengths, limitations and recommendations to the health care system, midwifery education and practice and research.

4. STUDY CONCLUSION, STRENGTHS, LIMITATIONS AND RECOMMENDATIONS

4.1. INTRODUCTION

In Chapter 3, the researcher presented the study findings, starting with the profiling of the participants, data analysis with tabulated themes, categories and subcategories which were discussed and supported with literature for a meaningful discussion. Chapter 4 focuses on the conclusions which will be based on the information extracted from the participants' responses during the interviews. The strengths, limitations and recommendations of the study will also be outlined in this chapter.

4.2. AIM OF THE STUDY

The overall aim of the study was to explore and describe barriers and facilitators associated with partograph completion by midwives in a referral hospital in Botswana.

4.3. CONCLUSIONS

The study conclusions were made looking at the themes as they emerged from the collected data, which were broken down into categories and subcategories. The study aimed at exploring and describing the barriers and facilitators associated with partograph completion by midwives in a referral hospital in Botswana.

4.3.1. BARRIERS TO PARTOGRAPH COMPLETION

The study participants reported some challenges regarding partograph completion when managing the women in labour. These were health care system barriers, organisational barriers, human resource barriers, and midwife related barriers which collectively led to inadequate partograph completion and subsequent mismanagement of labour.

In this study, the participants were individually asked what they personally regarded as barriers to partograph completion in the labour ward. They were allowed to answer the question as freely as possible, with probing and structuring questions throughout the interview. The health care system barriers mentioned included health care provider barriers, health care facility barriers, and health care system barriers. The collected data revealed that the referral hospital does not serve its purpose of receiving referred high-risk or complicated maternity clients. The midwives at the referral hospital

indicated that their counterparts at maternity clinics do not educate the clients that if they are low risk they can deliver in those clinics. They verbalised those midwives at the clinics also go to the extent of finding any reason to refer all clients to them, even low-risk clients that they could manage. This could also be because there is no policy controlling or limiting the clients to be serviced at different levels of health care looking at their health status.

The admission area for the Obstetrics and Gynaecology department is in the labour ward and functions as the triaging area for the department. Their main concern about such an arrangement was that it was being manned by the limited and already overwhelmed labour ward staff. Almost all the participants were concerned about this arrangement, saying it puts a high burden on the labour ward staff.

The organisational barriers deduced from the interviews were inconducive work shifts, unmanageable workload, and inadequate managerial support. The unmanageable workload was attributed to a low midwife to patient ratio due to a shortage of staff and high patient flow. Inadequate managerial support was said to be a demotivating factor for the midwives in their duty. The participants were worried about the night shift which was the longest and often the busiest, leading to exhaustion and more gaps and errors in documenting on the partograph. The other challenge with the night shift was that normally there is no support staff to assist the midwives with other duties for them to focus on the woman and the documentation. The midwives also come across some incidences that traumatised them in the process of their work, and they felt that at time they needed counselling.

There were also human resource barriers that were said to hinder the midwives' performance. These include shortage of midwives, inconsistent availability of support staff, inadequate acknowledgement of midwives and the nurses' negative attitude towards midwifery. The acute shortage of midwives made the midwives to not cope with the patient load. Inconsistent availability of support staff leads to work overload for the midwives. The participants were also concerned about the lack of acknowledgement in terms of promotions or other incentives. Some participants mentioned that they have been stagnant on one salary scale for a long period, therefore, they just go to work for the sake of going, without any motivation. The general nurses were said to be showing less or no interest in going to do post-basic training in midwifery, which further aggravates the staff shortage.

The identified midwife-related barriers included the midwife's accountability and responsibility, competency, perceptions, and personal wellness barriers. From the interviews, it was apparent that some of the midwives did not exercise the required accountability and responsibility. At times they would just be casual with their work probably because of laziness, leading to gaps in the partographs. The competency barriers were associated with a lack of understanding on how to plot the partograph due to a lack of or less practice, especially the midwives working in the clinics. Perceptual barriers were also evident from the interviewed participants, where they mentioned that some aspects in the partograph are less important, therefore they ended up omitting them. The midwife's personal wellness

would play a vital role in their performance. The participants said if a person is not well, they are prone to make mistakes or have omissions in their documentation.

Partograph related barriers were also identified from the information collected. These included the frequency of the checking and unclear completion guidelines. Some of the participants felt that the time interval between some of the variables to be checked is unnecessarily too frequent, leading to gaps when they are unable to match up to those time intervals. Unclear completion guidelines as said by the midwives refer to a lack of reference material on how to deal with some difficult situations as one fills the partograph. Some participants were even asking the researcher how to deal with incorrect plotting and other situations they encounter while using the partograph.

The identified barriers to partograph completion discussed above are the major reasons why the midwives are not able to complete the partograph according to the requirements, leading to gaps and omissions with subsequent mismanagement of the clients. The gaps and omissions lead to late or non-identification of complications that result in maternal, perinatal, and neonatal morbidity and mortality.

4.3.2. FACILITATORS TO PARTOGRAPH COMPLETION

The facilitators are enablers that aid the midwives to complete the partograph according to the requirements, leading to improved care and better management of women in labour. The participants mentioned some facilitators to partograph completion, which they experience as they take care of the women during labour and delivery. These are human resource-related, midwife related, support related, and partograph related facilitators.

The human-resource-related facilitators that were mentioned are the availability of midwives and availability of support staff. The participants cited that on days when they are well-staffed and with a lighter workload, they can complete the partograph accordingly. They also mentioned that during day shifts when the support staff are available, there are usually fewer gaps as the support staff assist with other duties and attend to non-core duties of which in their absence, those activities will be the responsibility of the midwife.

The midwife related facilitators raised was the commitment to the midwifery profession and teamwork which are specific to midwives. The participants reported that after doing a good job and achieving the desired results (a healthy mother and new-born), it gives them gratification and they look forward to coming for the next shift. They will be motivated to get the same satisfying results continually. Teamwork was also said to be available among the midwives where they will share roles and responsibilities, resulting in completed partographs.

Partograph related facilitators or motivators were that it guides with timely interventions, decision making and that it is easily understood. The participants verbalised that these factors give them the energy to want to use the partograph and complete it accordingly.

4.3.3. RECOMMENDATIONS TO PARTOGRAPH COMPLETION

During the interviews, the participants made some recommendations that they believe can convert the barriers to partograph completion into facilitators. The recommendations were human resource-related, health care system-related, and staff welfare related. The participants proposed redistribution and re-deployment of more midwives to the labour ward, and that the general nurses could be allocated to the other maternity units that do not conduct deliveries to complement the midwives in those units. They also wished that midwives in the clinics could be rotated with those at the hospital, for exposure and better midwifery practice. The participants also wanted the admission area in the labour ward to be allocated its own staff reducing the workload of the already stretched staff in the labour ward. Other recommendations include additional human resources in the form of support staff for midwives. The researcher assumes that with adequate staffing, partograph completion will greatly improve, when comparing the improved outcomes when support staff are available.

The participants recommended correct health care facility utilisation relevant with the level of care to be provided at such a facility. Low-risk clients should be assisted at the clinics and the referral hospital should serve high-risk clients. Health care users should be educated for them to know the correct level of care for their conditions. Night shift barriers should be addressed as such that the working hours will be manageable for the midwives to cope with. Additionally, it is important to promote midwifery training to motivate general nurses to further their studies in midwifery.

Staff welfare is an important aspect of service provision. The study revealed staff welfare-related recommendations that need to be considered. The participants verbalised their need for emotional support as they encounter various difficulties in their duties. They mentioned that they need motivation as well so that they feel secure and supported by their management through all situations.

4.4. STRENGTHS AND LIMITATIONS

The researcher used semi-structured open-ended interviews to collect the data. The data collection method used is presumed to be a strength because it allowed collection of rich and informative data. The researcher did not have difficulty extracting information that revealed barriers and facilitators to partograph completion, as well as the applicable recommendations.

The limitations of the study would be that, although the study highlighted the important aspects to be considered as barriers and facilitators to partograph completion by midwives in a referral hospital in Botswana, the results may not be generalised to the other two referral hospitals because the sample included twelve midwives who were working in the labour ward of one of the three referral hospital in Botswana. Therefore, the limited population size of twelve midwives is considered not representative of the rest of the midwives in the three facilities. The study was also limited to the midwives who were working in the labour ward at the time of data collection. Since the midwives rotate between the three maternity units every two years, some of the midwives who had experience with partograph completion were not working in the labour ward at the time of data collection. Additionally, due to COVID-19 restrictions, obtaining authority to access the study site at the time that the researcher had scheduled for data collection was delayed both at the Ministry of Health and Wellness and the study site, leading to late data collection and delaying the study.

4.5. STUDY RECOMMENDATIONS

Despite the limitations, the findings may be useful to nursing practice, nursing education and further research. The following recommendations are therefore made:

4.5.1. NURSING PRACTICE

Based on the findings of this research study, there is a need for staff acknowledgement and recognition initiatives in the facility. Provision of more midwives and support staff to reduce the work-overload on the available staff is also vital. The department Obstetrics and Gynaecology admissions area should be separated from the labour ward and provided with staff to reduce the burden on the already stretched labour ward staff. Management involvement at all levels is also necessary. Regular in-service training on the use of the partograph and the importance of all the variables may assist in improving the correct completion of the tool. The management at the clinics and hospital should initiate a deliberate decision to promote the use of local maternity clinics thereby reducing congestion at the referral hospital.

4.5.2. NURSING AND MIDWIFERY EDUCATION

To combat the problem of general nurses not furthering their studies in midwifery, the nursing education programme may be revised as such that after three years of general nursing, the nurses automatically should proceed with a post-basic course of their choice, including midwifery. The midwifery training institutions affiliated with the hospital of the study site may use the research findings and apply them to overcome its challenges. Midwifery students may acquire knowledge from the study, and it also applies to qualified practising midwives. Utilising the knowledge from the study may improve their practical performance. The qualified practising midwives may apply the study results to guide them in practising

quality intrapartum care through proper partograph completion and early identification of maternal complications to prevent intrapartum complications. Partograph completion, its benefits and challenges need to be included and emphasised in the midwifery curriculum to ensure that students gain an understanding before being allocated to the maternity wards in both the clinics and the hospitals.

4.5.3. FURTHER RESEARCH

The researcher recommends a more comprehensive study that includes midwives working in both the referral hospitals, as well as lower-level facilities such as primary hospitals and clinics with maternity units. Additionally, a follow-up study that explores the reasons why clinics with maternity services are not providing that service optimally. Other research studies could assess the use of the partograph through different data collection methods such as participant observation, to appreciate the challenges experienced by the midwives as they deliver care to the women in labour. The study should establish patterns of utilisation and documentation which could help improve monitoring of pregnant mothers in labour, hence reduce maternal, perinatal, neonatal morbidity and mortality rates.

4.6. CONCLUSION

This study aimed to explore and describe barriers and facilitators to partograph completion by midwives in a referral hospital in Botswana. A qualitative exploratory and descriptive research design was used to conduct the study using semi-structured individual interviews. The data was collected from twelve midwives working in the labour ward of a referral hospital. The findings of the study revealed the barriers to partograph completion, a few facilitators that may aid towards partograph completion, and the proposed recommendations that may convert the barriers into facilitators. The findings of the study may be used to inform nursing practice, nursing education and further research studies. Improved partograph completion may subsequently lead to reduced maternal, perinatal, and neonatal mortality and morbidity.

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ANNEXURES

ANNEXURE A – UP REC APPROVAL

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Health Sciences

Institution: The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-GCP guidelines and has US Federal wide Assurance.

- FWA 00002567, Approved dd 22 May 2002 and Expires 03/20/2022.
- IORG #: IORG0001762 OMB No. 0990-0279 Approved for use through February 28, 2022 and Expires: 03/04/2023.

1 February 2021

Approval Certificate
New Application

Ethics Reference No.: 815/2020
Title: Barriers and facilitators associated with partograph completion in a referral hospital in Botswana

Dear Ms ML Ontiretse

The **New Application** as supported by documents received between 2020-10-21 and 2021-01-27 for your research, was approved by the Faculty of Health Sciences Research Ethics Committee on 2021-01-27 as resolved by its quorate meeting.

Please note the following about your ethics approval:

- Ethics Approval is valid for 1 year and needs to be renewed annually by 2022-02-01.
- Please remember to use your protocol number (815/2020) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, monitor the conduct of your research, or suspend or withdraw ethics approval.

Ethics approval is subject to the following:

- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

We wish you the best with your research.

Yours sincerely

Dr R Sommers
MBChB MMed (Int) MPharmMed PhD
Deputy Chairperson of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria

The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 and 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes, Second Edition 2015 (Department of Health)

Research Ethics Committee
Room 4-60, Level 4, Tswelopele Building
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Fakulteit Gesondheidswetenskappe
Lefapha la Disaense tša Maphelo

ANNEXURE B – MOHW HEALTH RESEARCH BOARD APPROVAL

PRIVATE BAG 0038
GABORONE
BOTSWANA
REFERENCE:

REPUBLIC OF BOTSWANA
MINISTRY OF HEALTH AND WELLNESS

TEL: (+267) 363 2500
FAX: (+267) 391 0647
TELEGRAMS: RABONGAKA
TELEX: 2818 CARE BD

REFERENCE NO: HPDME 13/18/1 **25th March 2021**

Health Research and Development Division

Notification of IRB Review: **New application**

Margaret Lesego Ontiretse
P.O. Box 2990
Francistown

Dear Margaret Lesego Ontiretse

Protocol Title: **BARRIERS AND FACILITATORS ASSOCIATED WITH PARTOGRAPH COMPLETION BY MIDWIVES IN A REFERRAL HOSPITAL IN BOTSWANA (PROTOCOL NO. 815/2020)**

HRU Approval Date:	25 March 2021
HRU Expiration Date:	24 March 2022
HRU Review Type:	Expedited Review
HRU Review Determination:	Approved
Risk Determination:	Minimal risk

Thank you for submitting new application for the above referenced protocol. The permission is granted to conduct the study.

This permit does not however give you authority to collect data from the selected sites without prior approval from the management. Consent from the identified individuals should be obtained at all times.

The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal must be submitted to the Health Research and Development Division in the Ministry of Health for consideration and approval.

Furthermore, you are requested to submit at least one hardcopy and an electronic copy of the report to the Health Research, Ministry of Health and Wellness within 3 months of completion of the study. Copies should also be submitted to all other relevant authorities.

Continuing Review

In order to continue work on this study (including data analysis) beyond the expiry date, submit a Continuing Review Form for Approval at least three (3) months prior to the protocol's

ANNEXURE C – STUDY SITE IRB APPROVAL

NYANGABGWE HOSPITAL
PRIVATE BAG 127
FRANCISTOWN

REPUBLIC OF BOTSWANA
MINISTRY OF HEALTH AND WELLNESS

TEL: (267) 2411000
FAX: (267) 2416706

07th MAY 2021

Researcher: MARGARET L ONTIRETSE

UNIVERSITY OF PRETORIA

Study Title: BARRIERS AND FACILITATORS ASSOCIATED WITH PARTOGRAPH COMPLETION IN A REFERRAL HOSPITAL IN BOTSWANA

Application Type: Initial Submission

Site: Nyangabgwe Hospital

Date of Approval: 07TH MAY 2021

Expiration date: 07th DECEMBER 2021

The Institutional Review Board (Research and Ethics Committee) for Human Subjects Research for Nyangabgwe Hospital is pleased to inform you that your request to conduct a research study has been approved.

- You will not change any aspect of your research without permission from the Nyangabgwe Hospital IRB. The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal must be submitted to the Research and ethics board for consideration and approval.
- You need to report any unforeseen circumstances including the termination of the study.
- You must allow Nyangabgwe Hospital IRB access to the study at any time for purposes of auditing.
- At the end of the study you should give Nyangabgwe Hospital IRB a hard copy and soft copy of your report.
- The permit does not however give you authority to collect data from the selected sites without prior approval from management and relevant heads of departments. Consent from the identified individuals should be obtained at all times.

Wishing you success in your study

NYANGABGWE HOSPITAL REGISTRY 07 MAY 2021 FRANCISTOWN REPUBLIC OF BOTSWANA

Yours Sincerely

Dr. Moira Tyreman
For: Chairperson Nyangabgwe Hospital IRB Committee
TEL: +267 2411385

ANNEXURE D – INFORMED CONSENT DOCUMENT

PARTICIPANT'S INFORMATION & INFORMED CONSENT DOCUMENT

STUDY TITLE: Barriers and facilitators associated with partograph completion in a referral hospital in Botswana

Sponsor: Margaret Lesego Ontiretse

Principal Investigator: Margaret Lesego Ontiretse

Institution: University of Pretoria

DAYTIME AND AFTER-HOURS TELEPHONE NUMBER(S):

Daytime number/s: [redacted]

After-hours number: [redacted]

DATE AND TIME OF FIRST INFORMED CONSENT DISCUSSION:

Date	**Month**	**Year**	**Time**

Dear Prospective Participant:

Dear Mr. / Ms......

1) INTRODUCTION

You are invited to volunteer for a research study. I am doing research for a Master of Nursing degree purpose at the University of Pretoria. This information in this document is to help you to decide if you would like to participate. Before you agree to take part in this study you should fully understand what is involved. If you have any questions, which are not fully explained in this document, do not hesitate to

ask the researcher. You should not agree to take part unless you are completely happy about all the procedures involved.

2) THE NATURE AND PURPOSE OF THIS STUDY

The aim of this study is to explore and describe barriers and facilitators associated with partograph completion by midwives in a referral hospital in Botswana.

3) EXPLANATION OF PROCEDURES AND WHAT WILL BE EXPECTED FROM PARTICIPANTS

This study involves one on one semi-structured interviews on what you may perceive as barriers and facilitators to partograph completion in the referral hospital

4) POSSIBLE RISKS AND DISCOMFORTS INVOLVED

There are no medical risks associated with the study as this is only an interview to collect the data.

5) POSSIBLE BENEFITS OF THIS STUDY

Although you may not benefit directly, the study results may help us to identify the barriers and facilitators to partograph completion, improve our performance, leading to early diagnosis of complications, timely interventions and the reduction of maternal, perinatal, and neonatal morbidity and mortality.

6) COMPENSATION

You will not be paid to take part in the study. However, any cost you have because of taking part in the study, for example snacks will be provided, and transport costs will be paid back to you (reimbursed).

7) YOUR RIGHTS AS A RESEARCH PARTICIPANT

Your participation in this study is entirely voluntary and you can refuse to participate or stop at any time without stating any reason.

8) ETHICS APPROVAL

This Protocol was submitted to the Faculty of Health Sciences Research Ethics Committee, University of Pretoria, telephone numbers 012 356 3084 / 012 356 3085 and written approval has been granted by that committee. The study has been structured in accordance with the Declaration of Helsinki (last update: October 2013), which deals with the recommendations guiding doctors in biomedical research

involving human/subjects. A copy of the Declaration may be obtained from the investigator should you wish to review it.

9) INFORMATION

If you have any questions concerning this study, you should contact:

Prof [redacted] Tel: [redacted] or cell:+[redacted]

10) CONFIDENTIALITY

All information obtained during this study will be regarded as confidential. Each participant that is taking part will be provided with an alphanumeric coded number e.g. A001. This will ensure confidentiality of information so collected. Only the researcher will be able to identify you as participant. Results will be published or presented in such a fashion that participants remain unidentifiable. The hard copies of all records will be kept in a locked facility at [redacted]

11) CONSENT TO PARTICIPATE IN THIS STUDY

- I confirm that the person requesting my consent to take part in this study has told me about the nature and process, any risks or discomforts, and the benefits of the study.
- I have also received, read, and understood the above written information about the study.
- I have had adequate time to ask questions and I have no objections to participate in this study.
- I am aware that the information obtained in the study, including personal details, will be anonymously processed, and presented in the reporting of results.
- I understand that I will not be penalised in any way should I wish to discontinue with the study and that withdrawal will not affect me in any way.
- I am participating willingly.
- I have received a signed copy of this informed consent agreement.

_____ _____

Participant's name (Please print) Date

_____ _____

Participant's signature Date

_____ _____

Researcher's name (Please print) Date

_____ _____

Researcher's signature Date

ANNEXURE E – INTERVIEW GUIDE

SEMI-STRUCTURED INTERVIEW GUIDE

STUDY TITLE: BARRIERS AND FACILITATORS ASSOCIATED WITH PARTOGRAPH COMPLETION BY MIDWIVES IN A REFERRAL HOSPITAL IN BOTSWANA

INTERVIEW DATE: _ _ / _ _ / _ _ _ _ **TIME**:……

PLACE OF INTERVIEW: …….

INTERVIEWER: …….

INTERVIEWEE: …… **AGE**……**GENDER**……..

CONSENT FORM SIGNED: Yes No

INTRODUCTION QUESTION (ICE BREAKER QUESTION):

Ø Tell me about yourself; How can you describe yourself in one sentence

Ø May I know about how long you have been working as a midwife?

Ø How long have you been working in this hospital……, and in the labour ward?

FOLLOWING QUESTION: 'Nodding head'' "mmhh ''So, you have (so much) experience as a midwife in this hospital?

PROBING QUESTION:

Ø Now, tell me……What do you think about partograph use in labour ward?

Ø In your own view, what can you say about the way the partograph is being completed by the midwives in labour ward?

Ø Are there any difficulties do you personally encounter when using the partograph for labour monitoring?

SPECIFYING QUESTION:

Ø What would you personally regard as barriers to partograph completion in labour ward?

Could you expand more on that…

Ø What would you regard as facilitators to partograph completion in labour ward?

Could you expand more on that…

Ø What would you say about the attitudes or perceptions of other midwives in relation to partograph completion?

Please tell me more about it…..

STRUCTURING QUESTION:

Ø In your own view what is the role played by ward the management regarding completion of the partograph in the labour ward?

Ø What do you think the management could do better in relation to the response given above?

Can you tell me more about what you have just said?

Now we proceed with the interview;

Ø Tell me…How would you relate midwife to patient ratio with completion of the partograph?

What do you think can be done about what you have just said?

Ø How can you relate partograph completion with the different shifts (morning, afternoon, night shift)?

What do you think can be done about that?

Ø How would you relate partograph completion with the health status of the midwives (mental, physical, and psycho-social health)?

Please tell more about it…….

'SILENCE': It allows the interviewee to have ample time to associate and reflect and break the silence themselves with significant information.

THANKING THE INTERVIEWEE:

Thank you for taking your time to participate in this interview. Is there anything else you think I should know, or that you would like to add or to ask?

ANNEXURE F – DECLARATION OF STORAGE

Protocol No. _____

Principal Investigator(s) Declaration for the storage of research data and/or documents

I, the Principal Investigator(s), Margaret Lesego Ontiretse
of the following trial/study titled: BARRIERS AND FACILITATORS ASSOCIATED WITH PARTOGRAPH COMPLETION BY MIDWIVES IN A REFERRAL HOSPITAL IN BOTSWANA
will be storing all the research data and/or documents referring to the above mentioned trial/study at the following address: Nyangabgwe Referral Hospital, Plot 2523, Marang Road, Francistown Botswana.

I understand that the storage for the above mentioned data and/or documents must be maintained for a minimum of 15 years from the commencement of this trial/study.

START DATE OF TRIAL/STUDY: February, 2021

END DATE OF TRIAL/STUDY: October,2021

UNTIL WHICH YEAR WILL DATA WILL BE STORED: 2035

Name : Margaret Lesego Ontiretse

Signature:.....

Date :19/10/2020

ANNEXURE G – EDITORS LETTER

N Sutherland
21 Aero Rd
Valhalla
0185

January 2022

I, Nicolette Sutherland (ID 740711 0250 081), hereby confirm that I have edited the proposal to engage in the presentation of the master's thesis noted below. The utmost care will be taken to ensure that the Final Document is free of spelling and grammatical errors, however, the accuracy of the final work remains the responsibility of the author.

Author: Margaret Lesego Ontiretse

Title: Barriers and Facilitators associated with partograph completion by midwives in a referral hospital in Botswana

The edit includes the following:

- Spelling
- Vocabulary
- Punctuation
- Grammar
- Consistency in terminology, numbering, font style.
- Sentence construction
- Suggestions for text with unclear meaning
- Logic: Relevance, clarity, and consistency
- Checking the list of references against in-text sources.

Nicolette Sutherland
082 453 1469
Nikkisuth40@gmail.com

ANNEXURE H – INTERVIEWS

PARTICIPANT NO.11- K.S

KEY:

RES: RESEARCHER

PART: PARTICIPANT

RES: My recorder is on so we are going to start…we are going to start like this; I would like to know about you, if you can just tell me about yourself in one or two sentences.

PART: Okay, my name is K.S. I'm a midwife in Nyangabgwe referral hospital. I've been a midwife since 2019. So, this is actually my second year as a midwife, and from my midwifery studies I completed in 2019 in May, and then I started working here in Nyangabgwe hospital at Antenatal ward. I moved to labour ward in April 2020. Okay.

RES: Alright, so you completed in 2019, you are basically around two years as a midwife? So, how can you describe your midwifery experience? How has been your experience?

PART: Wooow! Midwifery is a very nice course if I may say that. I did it because I wanted it. And I'm enjoying my current position is a midwife unlike when I was a general nurse. It's unfortunate that in Nyangabgwe we get so overwhelmed by clients, we are short staffed. But if it wasn't of that, I would say midwifery is a very nice profession and I'm happy to be a midwife. We learn a lot every day, you meet challenges everyday…something that we have never come across, so it's actually interesting.

RES: Okay, that's very nice to hear. So, now I know the kind of person that I'm talking to and I believe it's somebody with passion for midwifery. OK, now tell me, what do you think about partograph completion in labour ward. How do you think about it just in general, in the monitoring of labour? Is it a useful tool, is it a time waster, or is it having many unnecessary variables?

PART: Partograph is a very important tool for monitoring women in labour because it has all the variables that one may need or one has to consider when monitoring a client in labour, because time and again you're expected to check foetal heart rate every 30 minutes for a patient who is in active phase of labour, of which if there was nothing like that, we would like miss a lot of things. So, it's not a time waster, is something that is very important and if it's used accordingly without any omissions, we would achieve we would achieve great results in monitoring our women in labour.

RES: Okay, alright. So, in your view, what can you say about the way the partograph is being completed in the labour ward here?

PART: It's a difficult one but I will say I've noticed that those who are experienced with her being in labour ward for quite a while, they do complete it. At times they will say "correct here or correct there". They do make that is being completed. So, in general we are trying. We are trying to complete it so though at times it becomes a bit difficult especially when there are so many patients like when all the beds are occupied, because we have about six of them and if there are only three people in labour ward, it becomes very difficult to do things timely. But if it's not that full, completing it is never a problem. It depends on whether the ward is full or not.

RES: So, you're saying it depends on how busy the ward will be at that particular point in time?

PART: Yes…

RES: What you are saying is it like if maybe you're having a manageable number of clients, are you saying all the midwives are able to attend to every detail and complete every part asper the stipulated times, lets say maybe you area three in a shift and maybe having two women in labour?

PART: Yeah, that one I can strongly say yes if the number of patients is manageable, we do the right thing.

RES: Okay. Alright…Now coming to you is an individual can you say you have any or encountered any difficulties when using the partograph for labour monitoring? Difficulties, like maybe not understanding or maybe having to juggle between the patients so that maybe you don't meet the time that we're supposed to check all the necessary checkings and documenting.

PART: Well, with the photograph itself. I would say it's easy to use in monitoring the clients. I can't say I have problems like trying to fill in some details there and then. But if at all the world is busy, that is when it becomes very difficult to be doing your fetal heart every 30 minutes when you are busy suturing this side or doing some other things on the other patients. But apart from the hectic shift, if the ward is not busy filling the partograph is never a problem or a difficult. All the variables there are easily understandable and is easy to follow and fill in the graph.

RES: Okay. You talked about the world being busy, can you maybe elaborate more on that, to say when you say the word is busy what would be happening?

PART: Okay, the busyness of the word meaning…ok, normally there will be about four or five maximum midwives on duty. And if they are five or four midwives, they have to cover admissions area which is the entry point for our pregnant women. Even the delivered ones when they come the entry point is our ward, labour ward. So, we have to attend to those women, and you can even attend to even 20 in a shift…all the women coming through labour ward through admissions. And then if maybe you are only four, somebody will be stuck that side to attend to those ones who are coming in, and then also we have to have somebody allocated for theatre so that they attend to the emergencies. And then so if you have four, one will already be an admission, then this one will be attending to the labour rooms and then attend to other emergencies in the ward, which means if you have a foetal distress or APH or anything that has to be attended to as an emergency. One of us has to be there, so this means that we will be remaining with about two or three midwives left to attend left to attend to all the women in labour and the labour beds are about 5…no, they're 6 including the eclamptic Room. They can all be occupied. So, imagine six women in labour only having to be attended by two midwives, like running around…it becomes a big problem because it takes time for somebody may be conducting a delivery or suturing, and the other patient will be calling that site. So, it becomes very difficult for you to manage them well when you are short staffed. So, that is the business that I'm talking about.

RES: Okay. Alright, so looking at the situation that you have just described, do you think it's anything that can be done about it? Is there anything and if yes, what is it that can be done?

PART: Yes, there's always something that can be done. Like the way I have been explaining the challenges we have mostly are because of us midwives being short staffed. So, if the management or who-ever is relevant to allocating midwives to labour ward to be specific, they should consider such things as there are so many omissions which happen if the midwives are short staffed. Because labour…even the word labour it's self-explanatory. That's it is a lot being done so the midwife has to be there like full time for this lady in labour. So, if we are short staffed it becomes very difficult to be able to do all the things properly, proper documentations becomes a problem. So, the solution in this case would be to increase our human resources, more midwives so that the ratio for the nurse to the patient becomes a reasonable one in order for us to be able to do things the right way.

RES: So basically, you are saying the midwives to patient ratio is most of the time overwhelming and making the job to be unmanageable?

PART: Yes, especially…let's say when we're doing the night duty, the shift is 12 hours. So, imagine having four midwives on duty for 12 hours having to attend to so many patients during the night, it becomes very difficult. Yeah…so the timing hey!

RES: So you're saying the night shift is the longest shift? PART: It is the longest and it can be hectic, in most cases is very hectic.

RES: So you are saying is the most hectic among all the three shifts. PART: Yes…

RES: Okay. So, this night shift you said it's 12 hours…do you think there's anything that can be done about it, and if you if yes, what is it that you think can be done about it?

PART: I think we should try to make it to be 8 hours, instead of it starting at 7:30PM, maybe should start at 10PM. Like to make it as the shift of the day which is 8 hours, because…hey! The night is a killer. We should try the 10PM one and see how it goes, because when you come in at 10 you will be a bit fresh so we can be able to do things properly up until in the morning, unlike when you started working around 7:30 in the evening.

RES: Yes. Okay, So from the discussion that we've just had so far what can you pick from it and say I believe these are the barriers which you can say at times they prevent us from completing the partograph as it's supposed to be completed…just picking them from what we have just mentioned?

PART: Well, I can say is just work overload on the on the midwives, the ratio of the patient to the midwives. I'll say that is the main barrier causing a lot of problems, for us not to be able to complete the partograph accordingly.

RES: So this work over load, does it come about…or it comes about because of what reasons? Is it to the shortage, or is it maybe the number of clients who are coming?

PART: Well, I think the both the aspects apply in this case…like the midwives, we are not enough we are short staffed. And again Nyangabgwe on its own being a referral hospital, it means so many patients are coming here. The whole of the north, they're all referring here. So, the referrals that are coming in, they have a great influence in us not being able to do the right thing because there are just so many patients being attended to.

RES: Okay. Nyangabgwe is very busy, you are saying it caters for the whole of the northern part of Botswana? PART: Yes, the whole of the northern region come here. Maybe something should be

done, they should consider maybe finding another hospital to offload Nyangabgwe for minor cases, of course. RES: Mmmhhh…for non-complicated cases: PART: Yes for non-complicated cases. Maybe find a District Hospital to relief the referral hospital, it will do a great deal to relief.

RES: OK, so in my discussion with somebody yesterday, they mentioned that…okay, remember that about topic there is the keyword word “referral hospital”. So do you at times encounter patients who are coming not being referred, or not being really