Informational continuity approaches during birth within primary health care settings in the Western Cape: Experiences of midwives

By

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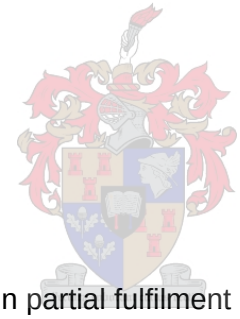

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DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third-party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Date: March 2023

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ABSTRACT

Background

The World Health Organization (WHO) framework on integrated people-centered health services focus on continuity and coordination of care in primary health care settings. This framework includes informational continuity as an approach to reach universal health coverage. According to the WHO, continuity of care includes four approaches, namely informational, interpersonal, longitudinal and management continuity.

Informational continuity during birth is a critical factor in the prevention of maternal morbidity and mortality and the reduction of duplication of services and fragmentation of care.

The aim of this study was to explore the experiences of midwives regarding informational continuity approaches used while providing maternity care for pregnant women in maternity obstetric units (MOUs) in the Tygerberg subdistrict of the Cape Town Metropole in the Western Cape, South Africa.

Methods

A qualitative descriptive phenomenological study approach was used to explore the lived experiences of midwives in MOUs regarding informational continuity approaches during birth. Purposive sampling was used to select participants from two MOUs in the Western Cape. Prior to data collection, approval was obtained from the Health Research Ethics Committee of Stellenbosch University and the Department of Health of the Western Cape. Eleven semi-structured online interviews were conducted, transcribed, and analyzed using Giorgi's phenomenological analytical approach.

Findings

The following themes emerged: Theme one: The communication of midwives with pregnant women. Theme two: The communication between midwives and other health care providers. Theme three: Documentation during birth. Theme four: The use of standardised clinical guidelines. The findings revealed that midwives effectuated positive patient-provider relationships by providing women with prompt communication and building good relationships. The continuous communication among midwives and with other health care providers ensured collective memory among the health care providers since all the health care providers had the same information regarding the women in their care. The midwives made use of synchronised care records that included the maternity case record (MCR), the partogram and the identify, situation, background, assessment and recommendation (ISBAR) tool to communicate effectively. Standardised clinical guidelines were used to facilitate standardised maternity care. The challenges identified were challenges in communication with the women due to

language barriers and women not bringing their MCR with to the MOUs. Communication challenges among midwives and with other health care providers identified were incomplete documentation, inaccessible records and incomplete handover of information during handover rounds and referrals. Recommendations included, to allow women to bring their own interpreter to the MOUs, regular in-service training for staff on communication and recordkeeping skills and regular training for midwives on clinical guidelines.

Conclusion

The findings demonstrated that overcoming the challenges in communication in the MOUs would ensure that informational continuity is accomplished through effective communication among the midwives and with other health care providers and the pregnant women in the MOUs. Hence, informational continuity during birth is an integral component of providing quality maternity care in MOUs.

Key words: Informational continuity, intrapartum period, primary health care, midwives, continuity of care.

OPSOMMING

Agtergrond

Die Wêreldgesondheidsorganisasie (WGO) se raamwerk vir geïntegreerde mensgesentreerde gesondheidsdienste fokus op kontinuïteit en koördinering van sorg in primêre gesondheidsorginstellings. Hierdie raamwerk sluit informatiewe kontinuïteit in as 'n benadering om universele gesondheidsdekking te bereik. Volgens die WGO sluit kontinuïteit van sorg vier benaderings in, naamlik informatiewe, interpersoonlike, longitudinale en bestuurskontinuïteit.

Informatiewe kontinuïteit tydens geboorte is 'n kritieke faktor in die voorkoming van moederlike morbiditeit en mortaliteit en die vermindering van duplisering van dienste en fragmentasie van sorg.

Die doel van hierdie studie was om die ervarings van vroedvroue te ondersoek rakende informatiewe kontinuïteitsbenaderings wat gebruik is tydens die verskaffing van kraamsorg vir swanger vroue in kraam-verloskundige eenhede (MOU's) in die Tygerberg-subdistrik van die Kaapstad Metropool in die Wes-Kaap, Suid-Afrika.

Metodes

'n Kwalitatiewe beskrywende fenomenologiese studiebenadering is gebruik om die geleefde ervarings van vroedvroue in MOU's rakende informatiewe kontinuïteitsbenaderings tydens geboorte te ondersoek. Doelgerigte steekproefneming is gebruik om deelnemers uit twee MOUs in die Wes-Kaap te kies. Vir data-insameling is goedkeuring verkry van die Gesondheidsnavorsingsetiekkomitee van die Universiteit Stellenbosch en die Departement van Gesondheid van die Wes-Kaap. Elf semigestruktureerde aanlyn onderhoude is gevoer, getranskribeer en ontleed aan die hand van Giorgi se fenomenologiese analitiese benadering.

Bevindinge

Die volgende temas het na vore gekom: Tema een: Die kommunikasie van vroedvroue met swanger vroue. Tema twee: Die kommunikasie tussen vroedvroue en ander gesondheidsorgverskaffers. Tema drie: Dokumentasie tydens geboorte. Tema vier: Die gebruik van gestandaardiseerde kliniese riglyne. Die bevindings het aan die lig gebring dat vroedvroue positiewe verhoudings tussen pasiënte en verskaffers bewerkstellig het deur vroue vinnige kommunikasie te gee en goeie verhoudings te bou. Die deurlopende kommunikasie tussen vroedvroue en met ander gesondheidsorgverskaffers het kollektiewe geheue onder die gesondheidsorgverskaffers verseker, aangesien al die gesondheidsorgverskaffers dieselfde inligting oor die vroue in hul sorg. Die vroedvroue het gebruik gemaak van gesinchroniseerde sorg rekords wat die kraamgevallerekord (MCR), die

partogram en die identifiseer-, situasie-, agtergrond-, assesserings- en aanbevelinginstrument (ISBAR) insluit om effektief te kommunikeer. Gestandaardiseerde kliniese riglyne is gebruik om gestandaardiseerde kliniese riglyne is gebruik om gestandaardiseerde kraamsorg te fasiliteer. Die uitdagings wat geïdentifiseer is, was uitdagings in kommunikasie met die vroue weens taalhindernisse en vroue wat nie hul MCR saamgebring het na die MOU's nie. Kommunikasie-uitdagings onder vroedvroue en met ander gesondheidsorgverskaffers wat geïdentifiseer is, was onvolledige dokumentasie, ontoeganklike rekords en onvolledige oorhandiging van inligting tydens oorhandigingsrondtes en verwysings. Gevolgtrekking Die bevindings het getoon dat die oorkoming van die uitdagings in kommunikasie in die MOU's sal verseker dat inligtingskontinuïteit bewerkstellig word deur effektiewe kommunikasie tussen die vroedvroue en met ander gesondheidsorgverskaffers en die swanger vroue in die MOU's. Daarom is informatiewe kontinuïteit tydens geboorte 'n integrale komponent van die verskaffing van kwaliteit kraamsorg in MOU's. Aanbevelings sluit in, om vroue in staat te stel om hul eie tolk na die MOU's te bring, gereelde indiensopleiding vir personeel oor kommunikasie- en rekordhoudingsvaardighede en gereelde opleiding vir vroedvroue oor kliniese riglyne.

Sleutelwoorde: Informatiewe kontinuïteit, intrapartumperiode, primêre gesondheidsorg, vroedvroue, kontinuïteit van sorg.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

ABBREVIATIONS

CHC	community health centre
IMB model	information-motivation-behavioural skills model
ISBAR	identify, situation, background, assessment and recommendation
MCR	maternity case record
MOU	maternity obstetric unit
PHC	primary health care
SANC	South African Nursing Council
SBA	skilled birth attendant
SDGs	Sustainable Developmental Goals
WHO	World Health Organization

CHAPTER 1
FOUNDATION OF THE STUDY

1.1 INTRODUCTION

Globally, maternal mortality remains a major concern since strategies needed to reduce maternal mortality do not yet meet the desired target of less than 70 per 100 000 live births as envisaged by Sustainable Developmental Goal (SDG) 3.1 (United Nations General Assembly, 2015:18). Maternal mortality is the death of a woman while pregnant, from any cause related to or aggravated by the pregnancy or its management (Alkema, Chou, Hogan, Zhang, Moller, Gemmill, Fat, Boerma, Temmerman, Mathers & Say, 2016:463).

In South Africa, the maternal mortality rate according to the Rapid Mortality Surveillance Report of 2017 is approximately 134 per 100 000 live births, which is high (Dorrington, Bradshaw, Laubscher & Nannan, 2019:21). The distribution of births in South Africa according to the Saving Mothers Report of 2017 indicates that about 115 525 births take place in a community health centre (CHC). This accounts for 12% of births in South Africa per year (National Department of Health, 2017:15). The distribution of maternal deaths per level of care indicates that 31.3% of maternal deaths take place in CHCs (National Department of Health, 2017:17).

The total maternal deaths in Western Cape CHCs were estimated at 80 deaths during 2017 (National Department of Health, 2017:10). The most common cause of death was found to be non-pregnancy-related infections, followed by medical and surgical conditions of pregnancy, which exceeded death due to hypertensive disorders of pregnancy (National Department of Health, 2017:10). The statistics indicate a need to implement further measures at CHCs to reduce the risk of maternal deaths. Effective informational continuity during treatment and care of women during labour and delivery is an effective strategy to reduce maternal mortality through rapid identification of complications and management thereof (Gephart & Cholette, 2012:1).

In South Africa, different levels of care are required to allow efficient functioning of health care services (National Department of Health, 2015:19). Health care services are rendered on three levels of care, namely primary level, secondary level and tertiary level of care.

The primary health care (PHC) level includes clinics rendering 8-hours-per-day services and clinics rendering 24-hours-per-day services that include maternity and obstetric services. PHC is also provided at maternity obstetric units (MOUs), CHCs and district hospitals. PHC is the

first level of care and aims to promote cost-effective care in the community as close to work or home as possible (WHO, 2018a:8).

Within PHC settings, midwives independently manage and treat women during labour and delivery. They communicate with other members of the multidisciplinary teams among settings should complications arise. Effective communication impacts the care coordination of pregnant women. Effective communication processes are imperative for the management of women during labour and delivery to ensure early identification of abnormalities and risk factors (M'Rithaa, Fawcus, De la Harpe & Korpela 2017:1). Communication among midwives and with other members of the multidisciplinary team requires up-to-date, clear, timely and comprehensive clinical information in order to achieve cohesiveness within the MOUs (Fealy, Munroe, Riordan, Croke, Conroy, McNamara & Shannon, 2016:20).

Informational continuity refers to how well health care information travels among the health care system, the care providers, and the patient over time to facilitate uninterrupted care; this is known as continuity of care (Gardener, Banfield, McRae, Gillespie & Yen, 2014:2).

The researcher focused on the informational continuity approaches adopted by midwives during birth in two MOUs in the Western Cape to determine how these approaches affected care coordination and care continuity. The researcher intended to identify strategies that might improve informational continuity among midwives within the MOUs, which the current body of knowledge could certainly benefit from.

1.2 SIGNIFICANCE OF THE STUDY

The goal of PHC is to ensure health for all and continuity of care within and among health care settings. The primary goal is to assist in the achievement of the SDGs (WHO, 2018a:7). The study targeted the contribution to the attainment of SDG 3, which focuses on healthy lives for all and the empowerment of women and girls. The study focused on the information and communication processes in two MOUs in the Western Cape with the emphasis on care coordination and informational continuity regarding women during birth in the MOUs. The study findings could contribute to the development of new strategies for information communication within MOUs. The study findings might also assist midwives and other health care professionals to improve current methods for communication to assist with care coordination and subsequent health outcomes of women during birth.

1.3 RATIONALE

As mentioned, maternal mortality and morbidity remain a concern around the world (Dorrington *et al*., 2019:21). The current maternal mortality statistics show a reduction in the

death rates of women following birth, but the goal of SDG 3.1, which is to reduce the global maternal mortality rate to less than 70 per 100 000 live births by 2030, has not yet been reached (Dorrington *et al*., 2019:21; WHO, 2019:2).

The WHO framework on integrated people-centred health services focuses on continuity and coordination of care in PHC settings. The framework includes informational continuity as an approach to reach universal health coverage (WHO, 2018a:4). Proper informational continuity across health care settings is essential for high-quality transitional care and improves patient satisfaction and continuity of care (Petersen, Foged, Madsen, Andersen & Nørholm, 2018:1).

Continuity of care is a critical but often neglected component in ensuring quality PHC. Continuity of care requires more attention and efforts to improve care coordination to achieve high-quality, equitable health care (Schwarz, Hirschhorn, Kim, Ratcliffe & Bitton, 2019:1). Continuity of care reflects the extent to which a series of discrete health care events is experienced by people as coherent and interconnected over time and consistent with their health care needs and preferences (Barker, Steventon & Deeny, 2017:3). According to the WHO, continuity of care includes four approaches, namely informational, interpersonal, longitudinal and management continuity (WHO, 2018:17).

This study focused on informational continuity and its influence on care coordination during the intrapartum period in two MOUs. Informational continuity is associated with positive childbirth experiences (Perdok, Verhoeven, Van Dillen, Schuitmaker, Hoogendoorn, Colli, Schellevis & De Jonge, 2018:2). The researcher therefore explored the experiences of midwives in PHC settings in the Western Cape regarding informational continuity approaches and their influence on care coordination of women during labour and delivery.

1.4 PROBLEM STATEMENT

The problem statement indicates the gap in knowledge and explains the need for the study to be conducted (Polit & Beck, 2018:93). As explained in the rationale, maternal mortality and morbidity remain a major concern since a high number of maternal deaths were found to be preventable (WHO, 2020:6). Effective informational continuity during the treatment and care of women during birth was found to be of paramount importance to facilitate care coordination and to contribute to positive birth outcomes (Downe, Finlayson & Fleming, 2010:1).

The challenges in ensuring effective communication may contribute to adverse birth outcomes and errors in patient care (Gephart & Cholette, 2012:1). No literature could be found that focused on informational continuity during birth and the experiences of midwives regarding

approaches to informational continuity and the influence thereof on care coordination of pregnant women during birth in PHC settings.

1.5 RESEARCH QUESTION

What are the experiences of midwives regarding informational continuity approaches that enable effective care coordination during birth within PHC settings in the Western Cape?

1.6 RESEARCH AIM

The aim of the study was to explore the experiences of midwives regarding informational continuity approaches that enabled effective care coordination during birth within PHC settings in the Western Cape.

1.7 RESEARCH OBJECTIVES

The objectives of the study were as follows:

RO 1: To explore the experiences of midwives with the positive patient-provider communication approach for effective care coordination during birth.

RO 2: To explore the experiences of midwives with the collective memory approach for effective care coordination during birth.

RO 3: To explore the experiences of midwives with the shared synchronised care records approach for effective care coordination during birth.

RO 4: To explore the experiences of midwives with standardised clinical guidelines for effective care coordination during birth.

1.8 THEORETICAL FRAMEWORK

The researcher made use of the information-motivation-behavioural skills (IMB) model as the theoretical framework for this study. The model describes how seeking information motivates a person or group to change behaviour. The information motivates the person or group to develop a set of skills to work towards achieving a set common goal. The person or group with the change in behaviour utilises a set of behavioural skills to work towards a common goal.

The IMB model is a socio-psychological model for understanding and promoting health-related behaviour. The IMB model was originally designed and developed to explain HIV risk and preventive behaviour and was later found applicable in diverse health domains (Fisher, Fisher & Harman, 2003:35).

The IMB model as shown in figure 1.1 identifies three constructs, namely information, motivation, and behavioural skills, that are factors associated with health-related behaviour. All three constructs are needed for successful self-management or adherence to a specific behaviour (Fisher *et al*., 2003:37). According to the IMB model, information and motivation may have direct effects on behavioural change and behaviour is influenced by information and motivation via behavioural skills. In other words, the initiation and maintenance of behavioural change happen when the appropriate behavioural skills are added to the information and motivation components.

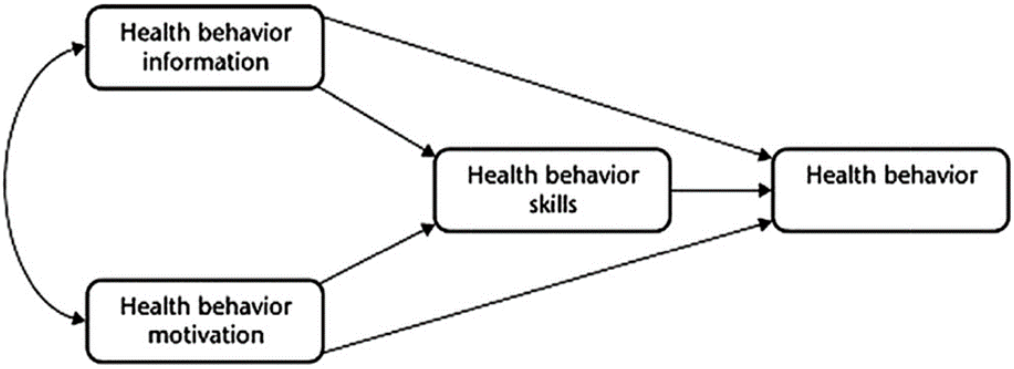

Figure 1.1: IMB model

Source: Adapted from Fisher and Fisher (1992)

In this study, the researcher only applied the health behaviour information construct of the IMB model. According to the IMB model, *health behaviour information* is defined as the initial requirement for specific health-related behaviour (Fisher *et al*., 2003:37). In this study, the health behaviour information is all the information concerning the pregnant women and their condition during the intrapartum period. This information was possible due to the informational continuity approaches. As outlined in figure 1.2 the informational continuity approaches are positive patient-provider relationships, shared synchronised care records, collective memory among midwives and standardised clinical guidelines. These approaches would ensure motivation of midwives to adopt the necessary skills to provide effective informational continuity during birth.

Health behaviour motivation according to the IMB model is composed of both personal and social motivation. According to the IMB model, personal and social motivation are two critical elements that influence health-related behaviour. Personal motivation is the individual's attitude towards health-related behaviour. Social motivation happens when there are social supports that facilitate health-related behaviour. This is an additional determinant of health-related behaviour and influences whether a well-informed individual will be able to adopt a

specific health-promoting action or behaviour. An individual's personal motivation and social support are both critical influences on health-related behaviour (Fisher *et al*., 2003:38).

The third component of the IMB model is *health behaviour skills*. These are the skills necessary for performing a health-related behaviour. To facilitate behavioural change, behavioural skills in the IMB model emphasise the improvement of an individual's objective skills and increased perceived self-efficacy. According to the model, information and motivation have a direct effect on both behavioural skills and health behaviour; additionally, behavioural skills exert direct effects on health behaviour (Fisher *et al*., 2003:38).

In this study, the researcher assumed that if there was informational continuity among midwives, there would be effective care coordination. The health behaviour information of the midwives would include positive patient-provider relationships, the collective memory approach, synchronised care records and the standardised clinical guidelines approach to ensure that effective informational continuity would take place.

To establish a positive *patient-provider relationship*, midwives should ensure that effective information communication takes place between them and the pregnant women. The need for better relationships will require the midwives to communicate effectively with the women by utilising the necessary communication skills to enable effective care coordination during birth.

Collective memory is ensured when the midwives share information among themselves in the MOUs and with other health care providers at transfer facilities to ensure that all have the same information regarding the women in their care to allow them to follow up on a woman's care. Informational continuity among the midwives will enable effective care continuity and care coordination.

Synchronised care records require describing the use of personalised records for women during birth. This includes the use of the maternity case record (MCR) by midwives to ensure effective care coordination. Midwives will be motivated to seek information on the care of women from care records and are motivated to adopt the necessary documentation skills in order to provide effective care coordination.

The standardised clinical guideline approach involves engaging with how the maternal clinical care guidelines are utilised by the midwives. The guidelines provide the midwives with guidance on how to manage certain conditions in pregnant women. The need for information on the care of women during birth motivates the midwives to seek information in the guidelines to ensure care continuity and care coordination during birth.

This aim of the study was to ensure continuity of care and care coordination among midwives. The informational continuity approaches, namely positive patient-provider relationships, synchronised care records, standardised clinical guidelines, and the collective memory approach, were described. The researcher explored how information was shared, obtained, and transferred among midwives, pregnant women, and other members of the multidisciplinary team at referral facilities.

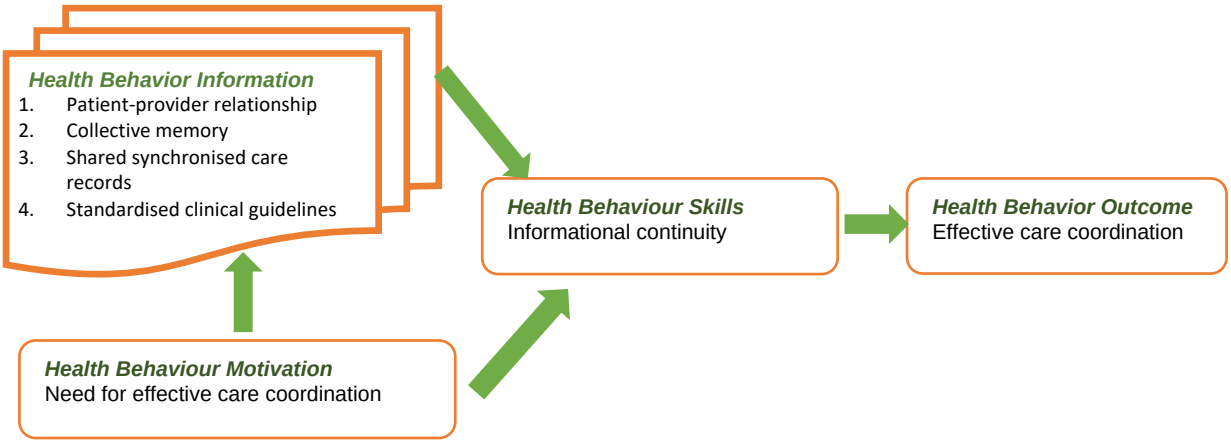

Figure 1.2: IMB theoretical framework

Source: Adapted from Fisher and Fisher (1992)

1.9 RESEARCH METHODOLOGY

The research methodology will be briefly discussed in this chapter. A qualitative research methodology was used to achieve the objectives of this study. The methodology will be discussed in detail in chapter three.

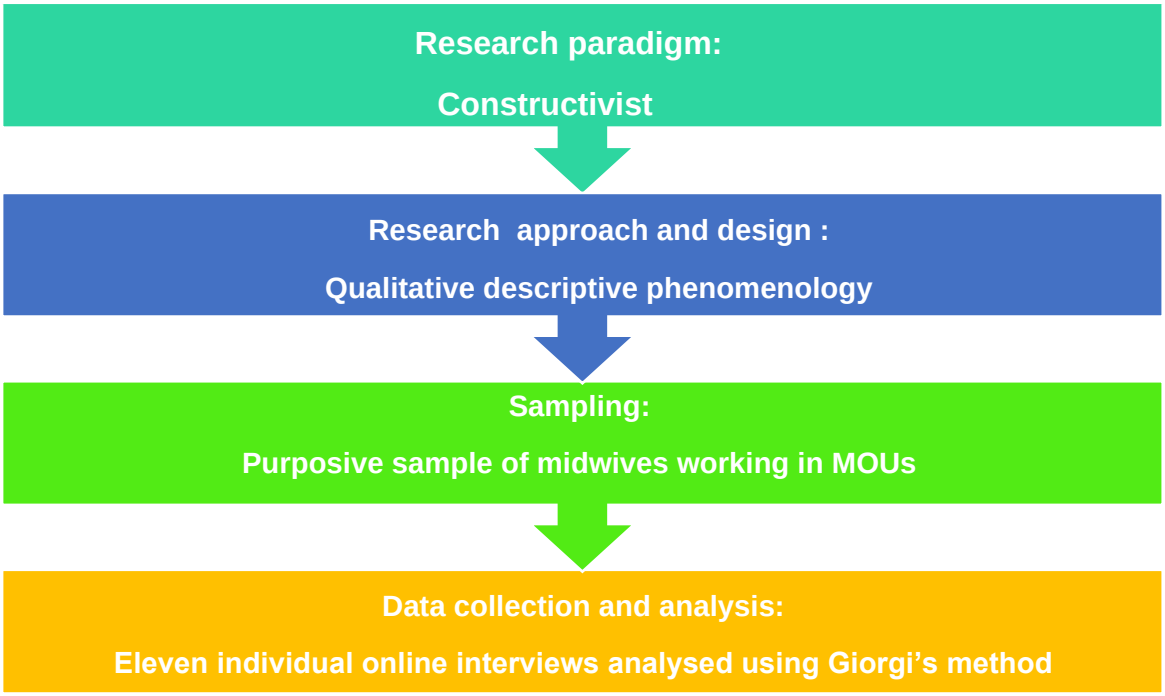

Figure 1.3: Overview of research methodology

1.9.1 Research paradigm

A paradigm is a way of looking at the world and is characterised by the way in which the paradigm responds to basic philosophical questions. These questions are based on the nature of reality and the interaction between the participants and the researcher (Polit & Beck, 2018:9). The researcher made use of the constructivism paradigm for this study. Constructivism asserts that people construct their own understanding and knowledge through experiencing things and reflecting on those experiences. The findings within the constructivism paradigm result from the interaction between the researcher and the participants. The detailed descriptions of participants' experiences regarding the phenomena under study allow the researcher to understand the phenomena (Polit & Beck, 2018:11). Qualitative research is associated with the constructivism paradigm. By using this paradigm, the researcher was able to describe the experiences of midwives regarding informational continuity approaches and how this influenced care coordination during birth within the MOUs.

1.9.2 Research design

A qualitative descriptive phenomenological study design was used to explore, analyse, and describe the lived experiences of midwives in the MOUs regarding informational continuity approaches during birth. The design was the most appropriate to achieve the aims and objectives of this study. The descriptive phenomenological research design allowed the

midwives to explain their experiences during the interviews regarding informational continuity approaches adopted during birth within the MOUs.

1.9.3 Study setting

The study was conducted at the Elsies River and Bishop Lavis MOUs in the Western Cape. These MOUs are situated in Cape Town, in the Tygerberg subdistrict of the Cape Metropole of the Western Cape. Figure 1.4 below presents a map of the health subdistricts in the Cape Metropole. The study setting will be discussed in detail in Chapter Three.

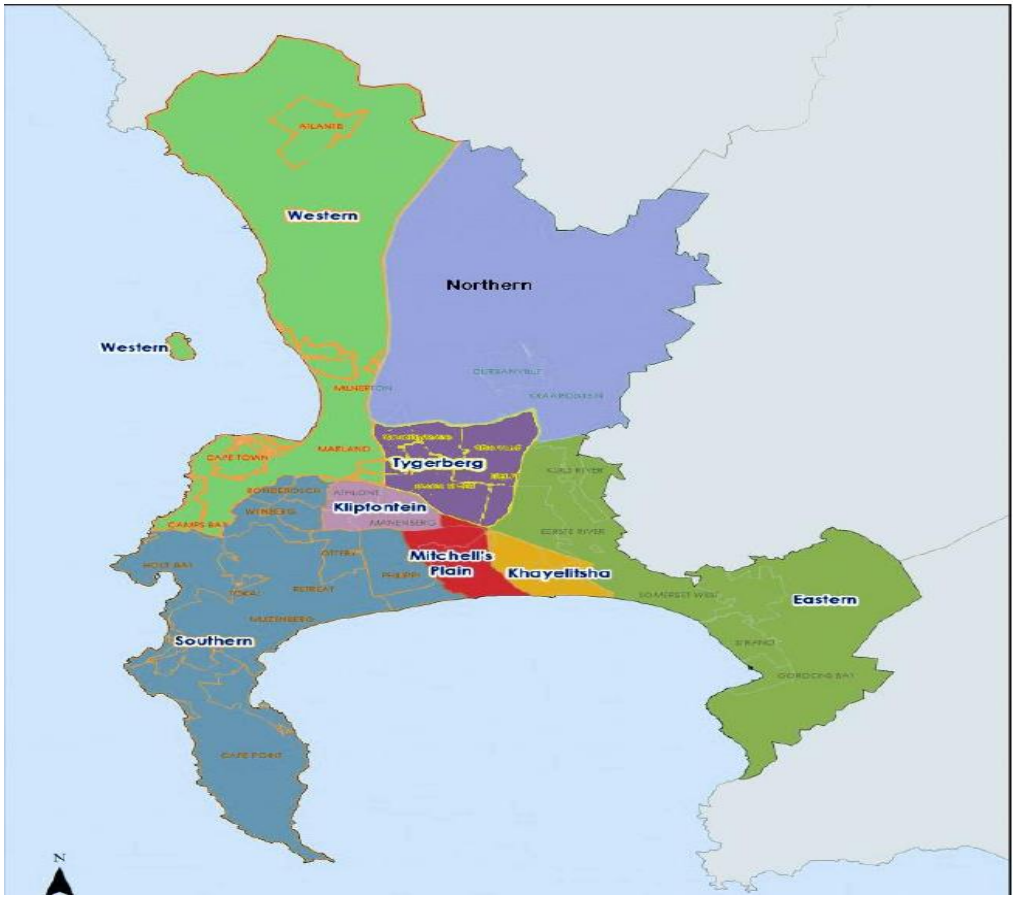

Figure 1.4: Map of health subdistricts in the Cape Metropole

Source: Gebhardt (2016:8)

1.9.4 Population and sampling

The accessible population for this study was the midwives working at the Elsies River and Bishop Lavis MOUs. Purposive sampling was used for this study. The sample size was eleven participants, which included midwives with a midwifery qualification registered with the South African Nursing Council (SANC) working day and night shift in the Elsies River and Bishop

Lavis MOUs. All other All midwives working in the MOUs that was on annual leave, sick leave and maternity leave were excluded from the study.

1.9.5 Data collection tool

A semi-structured interview guide with open-ended questions and probing words that were aligned with each research objective was used. The interview guide was drawn up in English, Afrikaans, and isiXhosa since these were the three main languages used in the geographical area. The method allowed the midwives to fully describe their experiences and to express their lived experiences in their own words. An example of the interview guide is provided in Appendix 4.

1.9.6 Pilot interview

One pilot interview was conducted. The purpose of the pilot interview was to test the semi-structured interview guide for feasibility of data collection before the actual data collection process was commenced for this study. The researcher conducted an online interview with a midwife who met the inclusion criteria of this study to ensure that questions were clear and to refine her interviewing skills. The researcher and the study supervisor listened to the interview and assessed the quality of the data obtained as well as the interview skills of the researcher. The pilot interview was included in the data analysis.

1.9.7 Trustworthiness of the study

The criteria to ensure trustworthiness in this study included credibility, dependability, confirmability, and transferability as per the framework of Lincoln and Cuba's (1985) as cited in Polit & Beck, (2018:295-296). A detailed explanation of how trustworthiness was ensured in this study is discussed in chapter three.

1.9.8 Data collection process

Data collection occurred in the form of online interviews with the midwives and the use of a semi-structured interview guide. Data collection occurred during the COVID-19 pandemic when gatherings in confined spaces and physical contact between people were not allowed; therefore, the researcher made use of online interviews. English, Afrikaans, and isiXhosa were the main languages used in the geographical area. The interviews were conducted in English and Afrikaans since these were the languages predominantly spoken by the midwives. The researcher offered to provide the isiXhosa participants with an interpreter upon informed consent if needed. The participants declined the use of an interpreter since they were all fluent in English.

The researcher scheduled the individual interviews with the participants according to what was convenient for each participant regarding time and place. The researcher used a private locked room to ensure confidentiality during the online interviews. The interviews were audio taped upon informed consent from the participants and lasted 40 to 60 minutes. Field notes were taken during the interviews by the researcher. After each interview, the researcher documented additional perceptions and recollections from the interviews in a reflective journal.

1.9.9 Data analysis

The researcher adopted Giorgi's (1985) phenomenological analytical approach as the method for data analysis as cited in Polit & Beck, (2018:283). The phenomenological method of data analysis will be described in detail in chapter three.

1.10 ETHICAL CONSIDERATIONS

Ethics refers to the quality of the research procedures and the adherence to professional, legal, and social obligations of the research participants. The Declaration of Helsinki provides guidelines for the ethical conduct of research. This study incorporated the ethical principles involving human subjects (World Medical Association, 2013). These principles are autonomy, privacy, confidentiality, justice, and beneficence and nonmaleficence. Prior to commencement of the study, ethical approval was obtained from the Stellenbosch University Health Research Ethics Committee in October 2020 (reference: S20/06/192). Permission was obtained from the Western Cape Department of Health to conduct this study at the Elsies River and Bishop Lavis MOUs. Institutional permission was requested from both MOUs before the study commenced (reference: WC-202101 002). A copy of all the approval letters is presented in the appendices.

1.10.1 Autonomy

All participants should be treated as autonomous agents who are capable of self-determination (Grove, Burns & Gray, 2013:164). The researcher provided each participant with adequate information regarding the study in the form of an information leaflet. The participants could comprehend the information. They were given the freedom to decide whether they wanted to take part in the study or not. Informed consent was obtained from all the participants prior to participation in the study. The study included the use of a voice recorder during the individual online interviews. Consent for the use of a voice recorder during the interviews was included in the consent form.

1.10.2 Privacy

Privacy is defined as the right to determine the time, extent, and circumstances when personal information is shared or withheld (Grove *et al*., 2013:165). The participants' right to privacy was maintained by allocating a code to each participant and ensuring that the data collected did not reflect any personal information of the participants.

The researcher obtained permission from the participants to share their contact information in order to provide them with the data bundles needed for the online interviews. The researcher provided each participant with a data bundle for the purpose of the online interview worth R100 and a separate data bundle for personal use worth R100 to thank the participants for their time, effort and inconvenience during participation in the study. The contact information of participants was destroyed immediately after the data bundles had been distributed.

The researcher is a registered nurse working as a midwife at Karl Bremer Hospital in the Western Cape. The researcher had thus no prior contact with the participants. The researcher ensured that the online interviews were scheduled according to a time convenient to the participants and preferably after work to prevent inconvenience to the participants.

The researcher used a private locked room in her house to conduct the online interviews to ensure privacy and confidentiality of the participants.

1.10.3 Confidentiality

Confidentiality is the researcher's management of private information, shared by the subject, that must not be shared with others without authorisation from the subject (Burns & Grove, 2001:201). Confidentiality was ensured by assigning a code in the form of a number to each participant and ensuring that the audio recordings and transcripts did not reflect any personal details of the participants. The researcher commenced the interview by stating "Interview of (participant's code, e.g., 001)". This ensured anonymity throughout data collection and data analysis and in the research report.

The researcher was the only person who had access to the real names of the participants. The researcher stored all the transcripts, audiotapes, and written copies of the study in a locked cupboard in a secure location. Electronic copies of the study are stored in a password-protected file on the researcher's personal laptop. Audio recordings and copies of the study will be securely stored for at least five years.

1.10.4 Beneficence and nonmaleficence

According to Grove *et al*. (2013:174), protection from harm and discomfort is based on the ethical principle of beneficence, which holds that one should do good and inflict no harm. Participants were not coerced to participate or to remain in the study. Participants were protected from harm and discomfort by informing them that they could withdraw from the study at any time that they experienced discomfort during participation and by encouraging them to verbalise any such discomfort. They were also informed that if they exited the study, the data collected from them would be excluded from the research. None of the participants withdrew from the study. Nonmaleficence refers to not intentionally inflict harm (Pera & van Tonder, 2013:55). The researcher ensured to not intentionally harm participants by using online interviews during data collection to avoid any physical contact during the Covid 19 pandemic and therefore prevented the risk for participants contracting the Covid 19 virus by adhering to the Covid 19 protocols.

1.10.5 Justice

The ethical principle of justice encompasses the right to fair treatment (Burns & Grove, 2001:202). The principle stipulates that each person should be treated equally and receive what is owed to him/her (Burns & Grove. 2001:202). Only participants who met the inclusion criteria were selected to participate in the study. Written informed consent was obtained from each participant prior to participation in the study.

1.11 OPERATIONAL DEFINITIONS

Continuity of care

This is the degree to which a series of discrete health care events is experienced as coherent, connected, and consistent with the health care needs of pregnant women (Barker *et al*., 2017:3).

Care coordination

This includes factors such as collaboration and activities regarding pregnant women's health care among health care providers, patients, and other health care settings (WHO, 2018a:17).

Intrapartum period

This is the period from the onset of labour to the birth of the baby. It includes the first, second, third and fourth stages of labour to one hour after delivery of the placenta (Lowdermilk, Perry, Cashion, Alden & Olshansky, 2016:376).

Midwifery obstetric unit

This is a 24-hour health service providing maternity and obstetric care to pregnant women. When it stands alone, it is called a midwifery obstetric unit (National Department of Health, 2015:20).

Primary health care

This refers to the provision of first-contact essential health care based on practical, scientifically sound, and socially acceptable methods of care that are accessible and affordable according to the community's needs (WHO, 2018a:8).

Informational continuity

For the purpose of this study, the term 'informational continuity' will refer to how well a patient's health information is able to follow her throughout the care pathway over time among health care providers and different care settings (Gardener *et al*., 2014:2).

Midwife

This is a skilled, knowledgeable, and compassionate care provider to women, newborn infants, and their families across the continuum of prepregnancy, pregnancy, birth and the first few weeks of life (postpartum period) (WHO, 2019:7).

1.12 DURATION OF THE STUDY

The following table illustrates the duration of the study.

Year	Month	Activity
2020	September	Submission of proposal to Health Research Ethics Committee (HREC)
	October	Approval from HREC
2021	May	Provincial/institutional permission
	May	Pilot interview
	June-August	Data collection
	June-December	Data analysis
2022	January-November	Writing of thesis with continuous review by supervisor
	November	Technical and grammar editing
	December	Submission of thesis

Table 1.1 Duration of the study

1.13 CHAPTER OUTLINE

This thesis consists of five chapters that are structured as follows:

CHAPTER 1: INTRODUCTION AND BACKGROUND

This chapter consists of the introduction of the study, which provides insight into the research topic. The background also explains where the research problem emanated from. The chapter also outlines the ethical principles that were adhered to in the study.

CHAPTER 2: LITERATURE REVIEW

This chapter focuses on the aim of the study with themes created to summarise the published literature relevant to the research topic of the study. The literature review indicates what is known about the relevant topic and what needs to be further explored.

CHAPTER 3: RESEARCH METHODOLOGY

This chapter provides a detailed description of the research methodology used in the study. This includes the research design, data collection and data analysis, and trustworthiness of the study.

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION

This chapter provides a discussion of the data analysis process and a description of the researcher's account of the data offered in terms of the themes and subthemes that emerged during data analysis.

CHAPTER 5: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

In this chapter, the researcher draws conclusions from the results of the study and makes recommendations regarding health care practice and future research.

1.14 SUMMARY

In this chapter the researcher introduced the background, significance of the problem and the importance of doing a research study to explore the experiences of midwives regarding informational continuity approaches that enabled effective care coordination during birth within PHC settings in the Western Cape. A qualitative research approach and the descriptive phenomenological research design is described to be the most appropriate approach to achieve the aims and objectives of this study. The study population and sampling are discussed, and the data collection and analysis method is explained. The ethical considerations are outlined and a description of the significance of the study. In the following chapter the researcher discusses the literature review relevant to this research study.

1.15 CONCLUSION

Maternal mortality is a major concern around the world. Previous research findings have shown that ineffective communication within and among health care settings may have an adverse effect on patients' health outcomes. Informational continuity is of paramount importance to ensure collaborative understanding among pregnant women in labour, midwives, and transfer facilities to ensure continuity of care and care coordination. A pregnant woman during labour and delivery within an MOU requires optimal care to ensure a positive birth outcome. Effective communication and collaboration among midwives are needed to ensure mutual understanding within and among health care settings regarding the patient's condition to ensure coordination of care. Midwives play an important role in obtaining and sharing relevant and necessary information among themselves, other health care providers, patients, and referral institutions to ensure continuity of care. The study aimed to explore how the midwives transferred information among themselves and different health care facilities as well as how they communicated with the women during labour and delivery. The study findings may contribute to improvement in informational continuity strategies within the MOUs, which will promote a positive birth outcome for women.

CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter described the background of the research study, the problem statement, and the rationale for the study. This chapter outlines the relevant literature on intrapartum care and informational continuity approaches during birth and how this influence care coordination during birth within the PHC settings. Polit and Beck (2018:408) describe a literature review as a summary of evidence concerning what is known and not known about a topic, often prepared to put a research problem in context. Grove, Gray and Burns (2015:163) further elaborate that the purpose of a literature review is to provide a description of the current knowledge surrounding the research problem and to identify the gaps in the current knowledge surrounding the research problem. The literature review as mentioned summarises current evidence and illuminates the significance of the new study (Polit & Beck, 2018:108). This chapter discuss the relevant literature on PHC, the role of the midwife, MOUs and their functions during intrapartum care, the importance of intrapartum care, information communication among midwives and with other health care providers, care continuity during birth, care coordination during birth, and guidelines and protocols on intrapartum care.

2.2 SELECTING AND REVIEWING THE LITERATURE

The literature review commenced in February 2019. A preliminary literature review was conducted prior to completion of the research proposal to determine whether any studies had been published on this study topic. The aim of the review was to determine how informational continuity approaches were experienced by midwives in MOUs, how this influenced care coordination during birth within MOUs and what the current informational continuity practices within MOUs entailed.

The search databases that were used included PUBMED, CINAHL, EBSCOhost and GOOGLE SCHOLAR. Several search terms were used, such as “intrapartum care”/“labour and delivery”/“birth”/“informational continuity”/“communication”, “MOU”/“midwifery obstetric units”/“birthing centres”/“midwife-led units” and “continuity of care”/“care coordination”/“primary health care”/“PHC”/“midwife”. In addition to the search databases, Stellenbosch University’s online library search engine was also used, under the “articles” category. The researcher used a variety of the same search terms for each database. The researcher included studies on informational continuity done in low- and middle-income countries. The researcher included only a few studies that were more than 10 years old as

these studies contained important historical information to support the literature in the current study.

2.3 GUIDELINES AND PROTOCOLS ON INTRAPARTUM CARE

2.3.1 WHO guidelines on intrapartum care

Globally, there is a shift in maternal health from an exclusive focus on survival to the inclusion of drivers for transformation and thriving (Renfrew, Mcfadden, Bastos, Campbell, Channon, Cheung, Silva, Downe, Kennedy, Malata & McCormick, 2014:1). This shift is in line with SDG 3, which aims to ensure healthy lives and promote wellbeing for all at all ages, and the new Global Strategy for Women's, Children's, and Adolescents' Health (2016-2030) (United Nations, 2015). The focus is on ensuring that women and their babies not only survive birth complications if they occur but also thrive and reach their full potential for life and health.

The WHO is supporting this global agenda and has recently published new recommendations on intrapartum care, which again stress the importance of a positive experience during childbirth (WHO, 2018b:1). The recommendations go beyond the prevention of morbidity and mortality and encompass a person-centred approach that includes optimising wellbeing and health for the woman and her baby (Oladapo, Tunçalp, Bonet, Lawrie, Portela, Downe & Gülmezoglu, 2018:918).

2.3.2 WHO guideline on a positive childbirth experience

According to the World Health Statistics Report of 2020, which monitors health for the SDGs, approximately 810 women died from preventable causes related to childbirth and pregnancy in 2017. Globally an estimated 295 000 maternal deaths occurred in 2017, with sub-Saharan Africa and South Asia accounting for approximately 86% of maternal deaths worldwide and 94% of all maternal deaths occurring in low- and middle-income countries (WHO, 2019:1).

In South Africa, according to the Saving Mothers Report of 2017, about 11 525 births take place in MOUs. The distribution of maternal deaths per level of care indicates that 31.3% of maternal deaths take place in MOUs (National Department of Health, 2017:17). The maternal mortality per level of care per province indicated that KwaZulu-Natal had the highest maternal mortality rate occurring in CHC's.

In the Western Cape, the total number of maternal deaths that occur in MOUs was estimated at 80 during the year 2017 (National Department of Health, 2017:10). The statistics indicate a need to implement effective strategies for management of pregnancy, the intrapartum period, and the postpartum period at the community health level to reduce the risk of maternal deaths.

South Africa has committed itself to achieving the SDGs. The target of SDG 3.1 is to reduce the maternal mortality ratio to less than 70 per 100 000 live births (Every Woman Every Child, 2016:6). The mentioned statistics are alarming and remain a major concern globally since a high number of maternal deaths could have been prevented through effective management and care during pregnancy, labour, delivery. (WHO, 2020:6). This further reiterates the need to prioritise maternal health care.

2.3.3 South African guidelines on intrapartum care

The intrapartum period is defined as the period from diagnosis of labour to the birth of the baby, which includes the first, second, third and fourth stages of labour to one hour after delivery of the placenta (Lowdermilk et al., 2016:376).

The intrapartum period, as classified in the Intrapartum Care Guidelines of South Africa recognises four stages of labour:

1) The first stage of labour lasts from the onset of labour to full dilatation and effacement of the cervix. The first stage of labour is further divided into the latent phase and the active phase of labour (WHO, 2018b:3).

- The latent phase of labour lasts from the time of onset of labour until the cervix is 5 cm dilated. The latent phase of labour is characterised by painful uterine contractions (WHO, 2018b:3).

- The active phase of labour is characterised by regular painful uterine contractions, cervical effacement and more rapid cervical dilatations from 5 cm dilated until full dilatation. The active phase of labour is characterised by a more rapid dilatation of the cervix. The duration of the active phase has not been established precisely and can vary from woman to woman. The duration of the active phase usually does not exceed 12 hours for nulliparous women and 10 hours for multiparous women (WHO, 2018b:3).

2) The second stage of labour is the period between full dilatation of the cervix and birth of the baby. During this stage, the woman will have a voluntary urge to bear down due to the expulsive uterine contractions. The duration of the second stage of labour varies from one woman to the other (WHO, 2018b:3).

3) The third stage of labour starts at the birth of the baby and ends after the delivery of the placenta (WHO, 2018b:3).

4) The fourth stage of labour is the first two hours after birth when the uterus still contracts in order to expel any remaining birthing materials and uterine involution takes place (WHO, 2018b:3).

The progress of a woman during the intrapartum period is documented using a partogram in the MCR. This partogram is used as a tool of communication among midwives who need to be informed of a woman's management and progress of labour during the intrapartum period. The partogram includes information such as the risk factors of the woman and the maternal and foetal condition. All the information regarding the management and treatment provided to the woman in labour is recorded on the partogram. This includes observation monitoring, cervical dilatation, effacement, descend of the foetal head, the foetal heart rate and the intensity and number of uterine contractions that a woman has in 10 minutes.

2.4 Levels of care and referral pathways

Different levels of care are required for efficient functioning of the health care system and services. Most health-related conditions do not need the facilities of large hospitals. Therefore, to ensure cost-effective health care, clinics and hospitals should share the patient care (National Department of Health, 2015:19). Clinics manage common and low-risk problems and hospitals the more complicated problems. It is therefore essential to have a referral system in place that stipulates clear protocols for management, referral patterns, transport, and the responsibilities of various categories of health care professionals (National Department of Health, 2015:19). Communication during all stages of labour is essential for midwives. Communication will assist in identification of abnormalities and in effective management and referral should complications arise.

2.4.1 Primary health care

Maternal mortality therefore necessitates a change in the health services needed by the population and contributed to the adaptation to the Declaration of Alma-Ata on PHC of 1978 in order to develop new visions for PHC for the achievement of universal health coverage, continuity of care and the SDGs. The Declaration of Astana on PHC developed in 2018 focuses on PHC services, which are imperative for the achievement of universal health coverage and the SDGs. The features of PHC allow the health system to respond to the rapidly changing world with a focus on prevention of illness and health promotion with a people-centred approach. PHC services are the first contact with health care and have been shown to be highly effective in the identification of risk factors and the main causes of poor health as well as handling challenges that may negatively impact the health of an individual in the future

(WHO, 2018a:6). Improving maternal health care therefore remains a population health priority in the Western Cape.

PHC is the first level of contact with the health care system. The aim of PHC is to promote cost-effective medical care to the community as close to work and home as possible (National WHO, 2018a:8). The primary health care level includes clinics rendering 24-hour per day services with an obstetrics unit. When the facility stands alone as a midwifery service, it is known as an MOU. This facility is staffed entirely by midwives. The midwives are telephonically linked to obstetricians at the referral hospitals should complications arise with the management and treatment of pregnant women.

MOUs are staffed entirely by midwives who are linked by telephone to referral hospitals (National Department of Health, 2015:20). Within the MOUs, midwives independently manage and treat women during birth. The midwives have the capacity to identify, manage and refer if any complications arise during pregnancy, labour, delivery and the postnatal period. The midwives communicate with each other and other members of the multidisciplinary team at referral facilities should complications arise.

For a minority of women, complications arise during labour and the risk category changes to a higher risk. These women should therefore be managed, stabilised and transferred to the appropriate health facility according to the different levels of care to prevent morbidity and mortality due to pregnancy- and birth-related complications. The midwife will arrange the transfer with either an obstetrician or another midwife at the next-level health facility. The transfer information should be holistic to ensure effective management and treatment of complications to prevent further complications and even maternal mortality. Inaccurate or missing clinical information within or among health care settings managing women during labour and delivery can cause delays and mismanagement of the pregnant woman (Overgaard, Møller, Fenger-Grøn, Knudsen & Sandall, 2011:2).

As mentioned above, pregnant women are cared for in an MOU in their communities during the intrapartum period; however, the care setting can change as complications and risks factors arise (Rowe, Kurinczuk, Locock & Fitzpatrick, 2012:1). Transfer of the pregnant woman to a higher level of care requires the transfer of accurate and up-to-date clinical information to enable informed decisions regarding the treatment and care of the woman. Transfers require prompt identification of obstetric emergencies and a clear summary of the woman's condition for handover to the transfer hospital. Effective information communication will enable the receiving hospital to plan for the care and management of the pregnant woman to ensure continuity of care and prevent maternal morbidity and mortality (M'Rithaa *et al*., 2017:1).

The functions of the MOU include provision of maternity care to low-risk pregnant women, identification of high-risk pregnant women who require specialised care and provision of basic emergency obstetric care, including administration of magnesium sulphate, oxytocic and intravenous antibiotics, vacuum deliveries, removal of retained placenta, neonatal resuscitation, and manual vacuum aspirations. The facility provides a 24-hour delivery service for pregnant women, comprehensive contraceptive care, referral of women with pregnancy-related complications to referral hospitals and management of obstetric emergencies.

2.4.2 Hospitals

District hospitals provide services that include trauma and emergency care, in-patient and outpatient visits, and paediatric and obstetric care. These hospitals may employ specialist family physicians, obstetricians/gynaecologists, and paediatricians. Karl Bremer Hospital, where the researcher is employed, is known as a general hospital.

Regional hospitals provide services for more complicated cases and receive referrals from district hospitals. In the Western Cape, Mowbray Maternity Hospital is categorised as a secondary hospital and receives direct transfers and admissions from other hospitals.

Tertiary hospitals render specialist and subspecialist care to several regional hospitals. These hospitals provide a platform for the training of health care providers and for research. These hospitals receive referrals from regional hospitals and serve the entire province. In the Western Cape, Groote Schuur and Tygerberg hospitals are the two tertiary hospitals that deal with maternal health services at a tertiary level.

During transfer of women to a higher level of care, midwives are required to provide adequate up-to-date clinical information to the referral facilities regarding a woman's condition. Effective communication and documentation of information regarding the woman's management and care are of vital importance to ensure continuity of care and a positive birth outcome for both the woman and her baby. Information communication allows midwives to respond swiftly to complications and risk factors during labour and delivery. The intrapartum period is a short period during labour and delivery but carries the highest risk for perinatal mortality and morbidity (Gephart & Cholette, 2012:1).

2.5 THE MIDWIFE

The WHO defines a midwife as a skilled, knowledgeable, and compassionate care provider to women, newborn infants, and their families across the continuum of prepregnancy, pregnancy, birth and the first few weeks of life (postpartum period) (WHO, 2019:7).

In South Africa, primary maternity services are provided to pregnant women in MOUs. The midwives in the MOUs work interdependently with obstetricians from referral hospitals in secondary and tertiary health care settings. Effective information communication during labour and delivery has been shown to reduce the risk of maternal mortality and morbidity.

The PHC Package for South Africa (National Department of Health, 2001:17) states that a midwife working in an MOU has the following responsibilities:

- History taking and performing of physical assessments and tests according to the antenatal care protocols and guidelines.
- Provision of routine management, observations and services according to the antenatal care protocol at each stage of the pregnancy.
- Provision of health education and counselling to pregnant women and their partners on the danger signs of pregnancy and labour, nutrition, child feeding, sexually transmitted infections, newborn and childcare, family planning, child spacing and advanced maternal age.
- Delivery of uncomplicated pregnancies.
- Postnatal care according to protocol.
- Counselling and screening for breast and cervical cancer.
- Provision of and counselling on family planning methods according to protocol.
- Management and stabilisation of obstetric emergencies and prompt referral.
- Referral to next-level facilities should the risk category of pregnancy change or if complications arise.
- Communication with pregnant women, clients, and members of the community.
- Communication and collaboration with other midwives in the MOUs and obstetricians at Level 2 and 3 health care settings.

2.6 INFORMATION COMMUNICATION

2.6.1 Communication among midwives and with other health care providers

Information communication processes among midwives and with other members of the multidisciplinary team are crucial, not only within PHC but also between primary and specialist care (De Jonge, Stuijt, Eijke & Westerman, 2014:1). Information communication within and among health care settings is used by midwives to make informed decisions regarding the pregnant woman's management and care; therefore, midwives rely heavily on information collected and documented in the woman's MCR. Furthermore, the pregnant woman's care and management are dependent on seamless information communication and collaboration among midwives in MOUs to ensure a positive birth outcome (M'Rithaa *et al*., 2017:2).

Information communication of midwives is recognised as essential to success in the work setting (Schwartz, Lowe & Sinclair, 2010:1). Clear information sharing and collaboration are critical for successful maternity services and will ultimately have a positive impact on both maternal and neonatal outcomes. Therefore, it is imperative for midwives to share and communicate their knowledge and experiences during their tasks (Styles, Kearney & George, 2020:350). Midwives transfer and share knowledge and information every day among themselves to make vital health care decisions in the health care setting (Schwartz *et al*., 2010:2).

2.6.2 Communication between midwives and pregnant women

Midwives provide independent maternity care to a diversity of women in MOUs. According to the WHO (2018a:18), communication is described as positive patient-provider communication. Midwives are therefore required to engage with women during the intrapartum period by providing them with adequate information concerning their treatment and care and to allow women to actively participate in their care. Various studies done on communication in maternity care noted that the first step in providing women with respectful maternity care was to involve women in their care by the provision of information and allowing women to make informed decisions. A participant observation study done in South Africa in Limpopo Province in a public maternity hospital found that effective communication between pregnant women and midwives had various benefits for the women that included enabling the women to feel relaxed, special, confident, and empowered (Maputle, 2018:4). Likewise, Standard 4 of the WHO quality of care framework states that effective communication between midwives and the women in their care can reduce unnecessary anxiety, promote interactions, and create a positive childbirth experience (WHO, 2016:22).

Midwives in maternity units are therefore required to communicate effectively with pregnant women. Childbirth is often associated with anxiety and fear for their unborn child for women. Therefore, midwives should build good relationships with pregnant women through communication. This was also noted in a qualitative study done in two nonteaching hospitals in Tehran, Iran, where midwives stated that women were very worried about their own health status and that of their unborn babies and that creating good relationships through communication with the women would ensure a friendly atmosphere in order to preserve respectful maternity care (Moridi, Pazandeh, Hajian & Potrata, 2020:4).

The communication skills of midwives are a critical factor and should be appropriate for conversations with pregnant women. Midwives provide the necessary support and assist pregnant women safely through childbirth within MOUs. A cross-sectional study done in Erbil

City, Iraq, in a government health setting on the role of verbal and nonverbal communication by health care providers in general satisfaction with birth care found that effective communication between pregnant women and midwives was an important factor in the women's satisfaction and the provision of safe maternity care (Ahmed, 2020:2). The WHO recommendations on intrapartum care for a positive childbirth experience include effective communication between pregnant women and midwives during labour, using culturally accepted methods and skills during communication (WHO, 2018b:3).

2.6.3 Challenges in communication

The literature discussed various challenges in communication that hindered effective communication during birth. Language barriers were found to be a contributing factor to ineffective communication with women in maternity units, and interpreters could assist with the facilitation of effective communication with these women (Maputle, 2010:10). Similarly, in a qualitative study by Hunter-Adams and Rother (2017:6) on language barriers between South African health care providers and cross-border immigrants in Cape Town in the Western Cape Province of South Africa, language barriers were found to be a major challenge to effective communication in maternity units with pregnant migrant women, including women from Somalia. The study asserts that professional medical interpretation may be a vital part of health care in cases where providers and patients lack a common language. Another descriptive cross-sectional study done in South Africa to determine the existing data and to provide a report on the performance of PHC in the country revealed that ineffective informational continuity led to fragmentation in care and a lack of care coordination (Bresick, Von Pressentin & Mash, 2019:111).

2.7 CONTINUITY OF CARE AND CARE COORDINATION

Continuity of care reflects the extent to which a series of discrete health care events is experienced by people as coherent and interconnected over time and consistent with their health care needs and preferences (Barker *et al*., 2017:3). Continuity of care enables care coordination by creating the conditions and relationships to support seamless interactions among multiple providers within interdisciplinary teams or across care settings or sectors (Petersen *et al*., 2018:1). There are four domains of continuity according to the WHO (2018a):

- Interpersonal continuity: The subjective experience of the caring relationship between a patient and his/her health care professional.
- Longitudinal continuity: A history of interaction with the same health care professional in a series of discrete episodes.

- Management continuity: Effective collaboration of teams across care boundaries to provide seamless care.
- Informational continuity: Availability of clinical information of pregnant women throughout their pregnancy at all encounters with health care providers and the ability of information to follow the patient throughout her life.

Care coordination is viewed by the WHO (2018a:17) as a proactive approach to bringing together care professionals and providers to meet the needs of service users to ensure that they receive integrated, person-focused care across various settings.

Further, a range of approaches are suggested as interventions for optimising care coordination, which include utilising interdisciplinary teams, describing care coordination roles, having formal assessment tools, having individualised and tailored care plans, utilising self-management support and utilising specialist support and training. The outcomes of these approaches will ensure smooth coordination as experienced by the pregnant women and the midwives while the teams are working together.

2.7.1 Informational continuity and care coordination

According to the WHO, informational continuity is the sharing of patient health information to ensure care coordination among health professionals to reduce duplication of interventions and fragmentation of care (WHO, 2018a:9). Informational continuity among midwives in MOUs, referral health care institutions and pregnant women is critical to the health and safety of women during the labour and delivery period. Informational continuity will assist with the planning, decision making and action plan for health care concerning women giving birth. Informational continuity among midwives, pregnant women and other health care institutions is of paramount importance to ensure continuity of care, collaboration and prompt identification of complications to ensure a positive birth outcome and to prevent morbidity and mortality (Downe *et al*., 2010:250).

There are four suggested approaches and interventions for achieving informational continuity according to the WHO (2018a:18):

- Positive patient-provider communication, which entails that the patient is informed of how and why her/his care is changing, which in turn improves patient satisfaction
- Information sharing among providers and settings to ensure collective memory. Proper exchange of relevant information across sectors will ensure high-quality health care.

- Shared synchronised care records to ensure informational continuity and mutual understanding among health care professionals.
- Standardised clinical protocols and guidelines in all care settings.

Pregnant women in MOUs should all receive an MCR, which is a client-held record. The Guidelines for Maternity Care in South Africa (National Department of Health, 2015) recommend the use of a standardised MCR by all facilities at all levels of care in order to improve the quality of maternity care provided to pregnant women (Sibiya, Cele & Ngxongo, 2015:53). The MCR is used as a tool of communication between pregnant women and health care providers. The MCR is standardised and allows for effective communication between pregnant women and health care providers across care settings.

Effective communication of information during the intrapartum period is essential to ensure prompt identification of abnormalities and swift management of women to prevent complications (M'Rithaa *et al*., 2015:1). The goal of health providers is to ensure a healthy mother and a healthy baby (Gephart & Cholette, 2012:1).

Informational continuity among midwives requires transmission of health information regarding the patient in a holistic, timely and clear manner among each other, multidisciplinary team members and referral institutions involved in the treatment and care of women during the intrapartum period.

Ineffective information communication among midwives, multidisciplinary team members and the patient during labour and delivery may impact information exchange. This can have a negative effect on the patient-provider relationship and may negatively affect the management and treatment provided to the patient (Attanasio & Kozhimannil, 2015:6). Similarly, it was found that a lack of information communication during transfers contributed to a delay in the provision of emergency medical care (Singh, Doyle, Campbell, Mathew & Murthy, 2016:2).

M'Rithaa *et al*. (2015:1) conducted a multimethod study in MOUs, with a multiple case study approach involving in-depth interviews to understand the information communication processes during the management of the intrapartum period. The study found that effective management during labour and delivery required critical information to be accurately communicated. Failure of or a breakdown in communication during labour places the safety of pregnant women at risk. This can be due to various reasons, including inadequate sharing of critical information, misinterpreting of information and making uninformed decisions regarding the treatment and care of women in labour. Midwives viewed communication as a critical component in the provision of quality maternity care and as essential for the coordination of work activities.

M'Rithaa *et al*. (2015:4) assert that the handover process in MOUs plays a critical role in the management of women during the intrapartum period. The handover process involves the exchange of information regarding women in labour who are already admitted to the MOU during shift change. Handover occurs from bed to bed in the labour ward and usually involves all midwives on duty. Miscommunication during handover can have negative consequences for the care of women during birth (Rickard, Lu, Gustafsson, MacArthur, Cummins, Coker, Wilson, Mane, Manneh & Manaseki-Holland, 2022:9).

The study by M'Rithaa *et al*. (2015:5) showed that midwives working in MOUs relied on telephonic communication for consultation because they functioned independently and there were no doctors available for consultation in the MOUs. The midwives would phone the referral hospitals to consult with a doctor to discuss the management of a woman or to ask for guidance if they were unsure of how to proceed with the care of a woman in the MOU.

The labour and delivery ward are a specialised department that provides care to pregnant women and their unborn babies. A relaxing and comforting atmosphere is created, which has a positive influence on the birth experience of women (Adams & Bianchi, 2008:109). Research has shown that if pregnant women are supported, cared for, and reassured by midwives, it contributes to their having a positive birth experience (Adams & Bianchi, 2008:111).

A descriptive study done by Madula, Kalembo, Yu and Kaminga (2018:5) in six tertiary hospitals that adopted qualitative data collection and analysis processes to explore the perceptions of health care provider-patient communication with the use of face-to-face in-depth interviews and a semi-structured interview guide found that some women admitted into labour wards had good communication with health care providers.

The midwives in the labour ward have a responsibility towards women during birth. The midwives need to reassure all women, even women who cannot understand them due to cultural constraints. Reassurance is based on verbal support to prepare for labour. This may include breathing techniques, how to bear down during delivery and relaxation techniques between contractions (Adams & Bianchi, 2008:112). Midwives therefore need effective communication skills to provide this information to women giving birth to ensure good outcomes. Verbal support is a crucial component of effective communication and contributes to women having a positive birth experience (Marshall & Raynor, 2014:535).

Informational continuity during labour and delivery is vital in the prevention of adverse events and even mortality of women (Gephart & Cholette, 2012:1). Other studies found that continuity of care might promote patient-provider relationships, which would assist in improving the

patients' understanding of health conditions and promote greater adherence to care strategies (Barker *et al.*, 2017:7; Perdok *et al*., 2018:2; Bresick *et al*., 2019:114).

Gaining insight into the midwives' experiences allowed the researcher to explore how information exchange took place among the midwives, referral settings, other members of the multidisciplinary team and patients and how this influenced care continuity. The gained knowledge would enable the researcher to provide recommendations for improvements in informational continuity within MOUs, which would ultimately have a positive impact on the care continuity of women during labour.

2.8 SUMMARY

In this chapter, a review of the literature that focused on maternal health care services, the four stages of intrapartum care, the importance of documentation and communication during the intrapartum period, the levels of maternity care and referral chains, the role and function of a midwife, PHC services, information communication during the intrapartum period, continuity of care and care coordination, and informational continuity and care coordination during birth and were discussed. The researcher also discussed the new WHO and SA Intrapartum Care Guidelines that were implemented in 2019. The literature review indicated a reduction in maternal mortality rates, but the target as set by the SDGs has not yet been reached. The statistics on maternal mortality indicated a need to implement further strategies to reduce maternal mortality. Effective information communication during the intrapartum period is a strategy to reduce maternal deaths and subsequently meet SDG 3.

2.9 CONCLUSION

The intrapartum period is a crucial period and has the highest maternal morbidity and mortality rate. Globally, women still die of preventable causes. Effective information communication during the intrapartum period plays a critical role in reducing mortality rates at the community health care level. Informational continuity during birth within MOUs will ultimately influence care coordination during birth. Therefore, the current information communication approaches among midwives in MOUs need to be explored and recommendations for improvements need to be made to achieve the universal goal of positive birth outcomes.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION

In chapter one the researcher discussed the introduction to the study, the significance and the rationale for the research study. The research problem, the research questions, objectives, research design, methodology, ethical considerations and the chapter outline were also discussed. Chapter two discussed the literature relevant to this research study. This chapter provide an in-depth discussion of the research methodology discussed in chapter one.

The objectives were as follows:

RO 1: To explore the experiences of midwives with the positive patient-provider communication approach for effective care coordination during birth.

RO 2: To explore the experiences of midwives with the collective memory approach for effective care coordination during birth.

RO 3: To explore the experiences of midwives with the shared synchronised care records approach for effective care coordination during birth.

RO 4: To explore the experiences of midwives with standardised clinical guidelines for effective care coordination during birth.

3.2 STUDY SETTING

The study setting is the geographical and physical location where the study took place (Polit & Beck, 2018:418). South Africa has nine provinces, including the Western Cape, Eastern Cape, Gauteng, Free State, Limpopo, Kwa-Zulu Natal, Mpumalanga, Northern Cape and North West. The study was conducted in the Western Cape Province, which is further divided into six districts, namely Cape Town Metro, Overberg, West Coast, Eden, Cape Winelands and Central Karoo with various levels of health care services supplied in each district (Gebhardt, 2016:5) (see Figure 3.1).

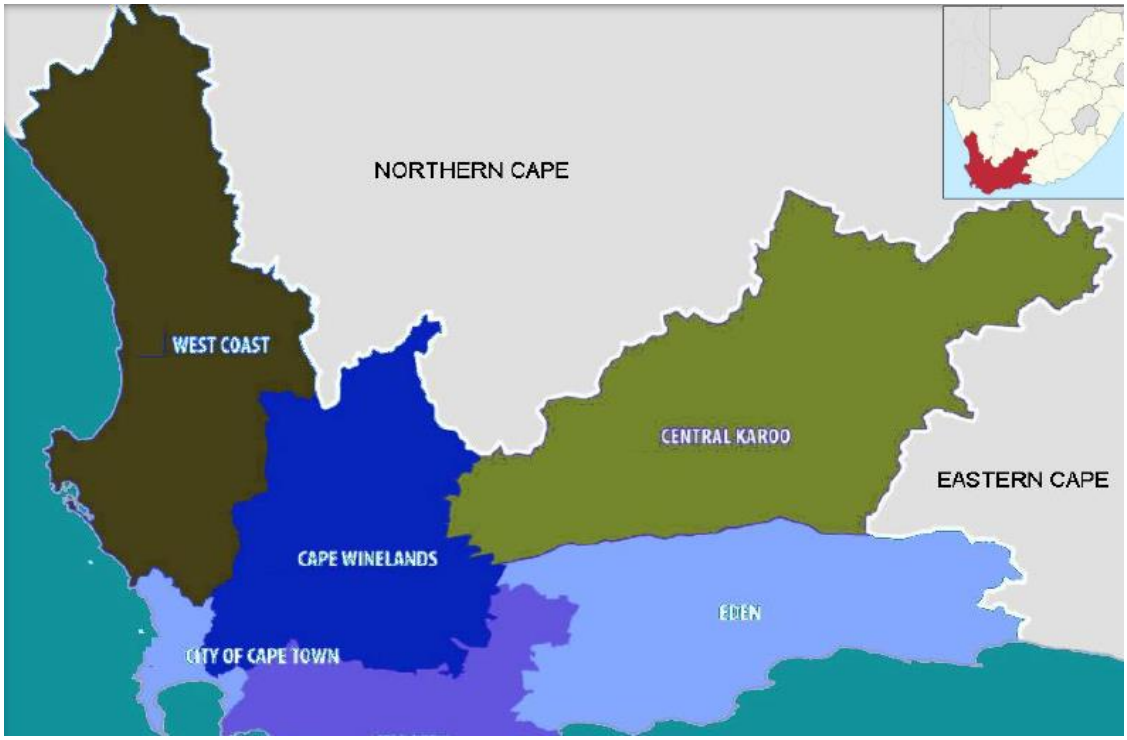

Figure 3.1: Western Cape districts

Source: Gebhardt (2016:6)

The study took place at the Elsies River and Bishop Lavis MOUs, both situated within CHCs. Elsies River CHC has an emergency trauma unit, an MOU that operates 24 hours a day and a PHC facility that operates Monday to Friday during office hours. Bishop Lavis CHC has a PHC facility that operates Monday to Friday during office hours and an MOU that operates 24 hours a day.

MOUs are facilities where midwives provide antenatal, delivery and postnatal care. One of their main functions is the identification and referral of high-risk pregnant women to referral hospitals. Referral hospitals include district hospitals that provide services that include trauma and emergency care, in-patient and out-patient care, and paediatric and obstetric care. Karl Bremer Hospital is known as a district hospital. Both the Elsies River and Bishop Lavis MOUs refer women with obstetric complications to Karl Bremer Hospital. A tertiary hospital renders specialist care and receives referrals from district hospitals and MOUs. Tygerberg Hospital is a tertiary hospital and receives referrals from Karl Bremer Hospital and the Bishop Lavis and Elsies River MOUs.

Both the Bishop Lavis and Elsies River MOUs are managed by midwives. The MOUs operate in the Tygerberg health district of the Cape Metropole of the Western Cape. Figure 3.2 below indicates the geographical location of the Elsies River and Bishop Lavis MOUs.

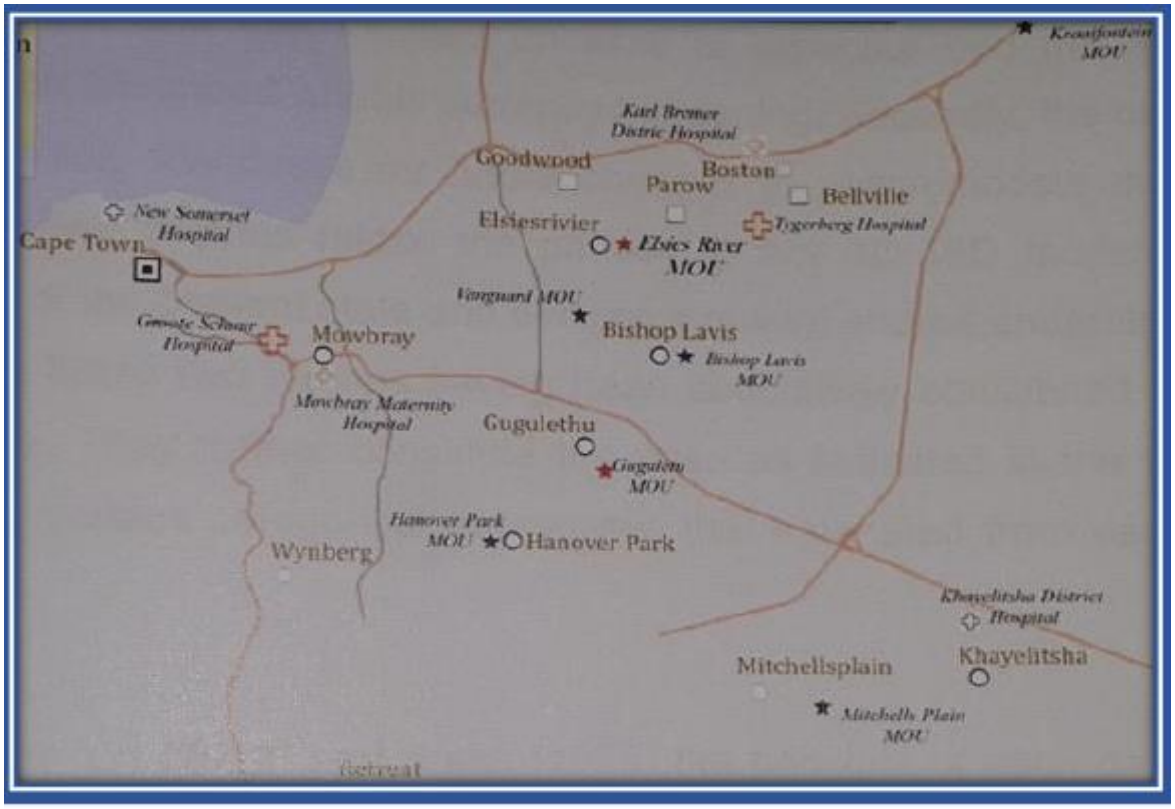

Figure 3.2: Geographical location of the Elsies River and Bishop Lavis MOUs

Source: M'Rithaa *et al*. (2015:99)

3.3 RESEARCH PARADIGM

The researcher adopted the constructivism paradigm for this study. This is also known as the naturalistic paradigm. The paradigm asserts that humans construct their own understanding and knowledge from their experiences and that truth is a construction of realities. The constructivist researcher is therefore focused on the understanding of human experiences through interaction with the research participants (Polit & Beck, 2017:11).

Within the field of nursing research, their exists to broad paradigms namely, constructivism and positivism. Paradigms are characterized by epistemology and ontology. Epistemology is concerned with the relationship between the researcher and the participants and ontology is concerned with what the nature of reality is (Polit & Beck, 2017:11). The positivist paradigm assumes that reality is driven by a cause effect relationship. Conversely constructivist assumes that reality is constructed by individuals and not a cause effect relationship (Polit & Beck, 2017:11).

Constructivist research is focused on the understanding of human experiences through qualitative data collection and analysis. Constructivist research occurs in the natural settings of the participants over a period of time. By using an inductive process, the researcher

combines the information to understand the phenomenon. The findings of the research provide a rich, in-depth description of the experiences of the participants (Polit & Beck, 2017:12). By adopting the constructivist paradigm for this study, the researcher was able to acquire knowledge of the real-life experiences of the midwives working in the two MOUs by allowing them to explain their perceptions and the meanings of their lived experiences regarding informational continuity approaches and how this influenced care coordination during birth in the MOUs.

3.4 RESEARCH DESIGN

The study followed a qualitative approach with a descriptive phenomenological study design. Phenomenology is a discipline that explores people's experiences. It seeks to explore the meaning of a phenomenon from the perspective of those who experienced the phenomenon. Phenomenology includes two approaches, namely Heidegger's interpretive approach that focuses on the meaning or interpretation of an experience and Husserl's descriptive approach that emphasises the pure description of an experience (Matua & Van Der Wal, 2015:23). The researcher adopted Husserl's descriptive phenomenological approach for this study. Qualitative research is seen as a systematic method used to explain experiences and situations as perceived by the person in a situation. The researcher then analyses these experiences and discovers meanings in the words of the participants. The researcher uses these meanings to provide a description of the participants' experience that promotes a deeper understanding of the experience (Grove *et al*., 2015:67). The qualitative descriptive phenomenological approach allowed the researcher to explore the experiences of midwives regarding informational continuity approaches and how this influenced care coordination of women during birth within two MOUs that formed part of PHC settings in the Western Cape.

Descriptive phenomenology as developed by Edmund Husserl focuses on the description of experiences as they occur in everyday life (Polit & Beck, 2018:187). The researcher engages with participants to derive knowledge by using an attentive manner that enables understanding and a description of the phenomenon. Experiences are unique to the person, time and situation in which they take place (Grove *et al*., 2015:67). The descriptive phenomenological study approach was considered so that the experiences of the midwives working in the MOUs could be explored, analysed and described regarding informational continuity approaches and how this influenced care coordination during birth.

Husserl's philosophical perspective concerns phenomenology that emphasises the description of experiences of study participants in their everyday life (Polit & Beck, 2018:401). Husserl focuses on epistemology, which concerns the relationship between the knower and

what needs to be known. The participant is the knower, and the researcher, in turn, wants to gain knowledge and understanding of the phenomenon under study. For this study, the knowledge concerned the experiences of midwives regarding informational continuity approaches during birth. The final description of the experiences of participants regarding informational continuity during birth should be pure and untainted by the views and opinions of the researcher.

The researcher therefore adopted Husserl's philosophy of phenomenology, making use of bracketing. Bracketing requires that the researcher identify any preconceived ideas, beliefs and opinions regarding the phenomena in question and consciously put any preconceived ideas and knowledge aside when doing the research in an effort to confront the information in a pure form (Polit & Beck 2018:188).

The researcher previously worked as a student midwife in MOUs and is now working as a midwife in a district hospital. The researcher therefore had preconceived ideas about how communication took place within MOUs between pregnant women and midwives as well as among the members of the multidisciplinary teams and with referral hospitals. The researcher was also aware of some of the challenges with communication. The researcher purposefully reflected on her prejudices and presumptions regarding the topic under study and wrote these down in a reflective journal.

During data collection and analysis, the researcher focused on the continuous bracketing of these preconceptions about the phenomenon in order to avoid influencing the final description of the participants' experiences and strived to attend to the phenomenon with an unprejudiced approach (Grove *et al*., 2015:69).

3.5 POPULATION AND SAMPLING

3.5.1 Population

The population is defined as the entire group of persons or objects that are of interest to the researcher (Polit & Beck 2018: 413). The population for the study included the entire group of midwives working at both the Elsies River and Bishop Lavis MOUs.

3.5.2 Sampling

Sampling refers to the process of selecting a sample of the population to obtain information regarding a phenomenon in a way that represents the population of interest. A sample is a part or a fraction of the whole population that represents the entire population that is selected by the researcher to participate in the study (Polit & Beck 2018:417

The purposive sampling method was used for this study. The method requires the intentional selection of participants who are knowledgeable about the phenomena in question because of their involvement in and experience of the situation (Polit &Beck 2018:200). Purposive sampling was appropriate for this study since the midwives had experience and knowledge regarding the phenomenon in question.

During Alert Level 3 of the COVID-19 pandemic, the researcher was granted the opportunity to recruit participants at the respective MOUs. The researcher personally recruited the participants. The researcher phoned the operational managers of the Elsies River and Bishop Lavis MOUs and arranged for a meeting. An appointment with each manager was scheduled. During these appointments, the researcher clarified the objectives of the study and ensured the managers that the study would not interfere with the participants' daily activities. The researcher was granted an opportunity to meet with the midwives of the two MOUs for an information session to introduce the study and to obtain consent from participants who were willing to participate in the study. These included all midwives working day and night shift in the MOUs. Only the midwives who were willing to participate were included in the study.

Sample size refers to the number of participants who will participate in the study (Polit & Beck 2018:417). The researcher performed online interviews with 11 midwives. Five interviews were conducted at Bishop Lavis MOU, and six interviews were conducted at Elsies River MOU. After the researcher had performed 11 online interviews with the midwives, data saturation was achieved, but the researcher performed one more interview to be certain that data saturation had occurred. This interview did not yield any new data.

3.5.3 Inclusion criteria

Inclusion criteria are specific characteristics that a participant must possess that will determine whether the person is eligible to participate in the study (Polit & Beck, 2018:405). The researcher included all midwives with a midwifery qualification who were registered with the SANC, who assisted women during labour and delivery, who dealt with transfers of women to next-level-of-care facilities and who worked day and night shift at the selected MOUs.

3.5.4 Exclusion criteria

Grove *et al*. (2013:353) described an exclusion criteria as characteristics that can cause a person to be excluded from the study sample. For this study the exclusion criteria were:

- All midwives working in the MOUs that was on annual leave, sick leave and maternity leave were excluded from the study.

3.6 DATA COLLECTION TOOL

The researcher used a semi-structured interview guide as tool for data collection. The interview guide was drawn up in the predominant languages used in the geographical area, namely English, Afrikaans and IsiXhosa. An example of the interview guide is provided in Appendix A.

A semi-structured interview guide with open-ended questions and probing words that were aligned with each research objective was used. The researcher made use of reflection and summarising during the interviews. The interviews started with the researcher posing an open-ended question to the participants such as, “What are your experiences on information exchange and transfer in the MOU?” and followed this by probing questions to obtain further information (Burns & Grove, 2011:85). The probing questions were formulated based on the specific research objectives of the study. An example of a probing question used was, “Explain to me the different methods used to communicate with the referral facilities.”

3.7 PILOT INTERVIEW

According to Brink, Van der Walt and Van Rensburg (2012:56), a pilot study is a smaller version of the larger study. The researcher conducted a pilot interview with a skilled birth attendant (SBA) who met the inclusion criteria. This interview assisted the researcher to assess the accessibility of the determined setting, the feasibility of data collection and whether the questions in the interview guide were clear. The researcher and the study supervisor listened to the pilot interview. No problems arose during the pilot interview. Data obtained during the pilot interview was included in the findings of this study.

3.8 TRUSTWORTHINESS OF THE STUDY

The criteria to ensure trustworthiness in this study included credibility, dependability, confirmability, and transferability as per the framework of Lincoln and Cuba’s (1985) as cited in Polit & Beck, (2018: 295).

3.8.1 Credibility

Credibility reflects the truthfulness of the data collected from the participants (Brink *et al*., 2012:172). To ensure credibility, the researcher made use of member checking. The researcher returned the collected data in the form of transcripts and audio tapes to the participants and asked them to verify the data to ensure that the data as collected during the initial interviews was a true reflection of their experiences. Peer debriefing was achieved by reviewing the interviews with the study supervisor (Brink *et al*., 2012:118). The interview transcripts were read and reread by the researcher and the study supervisor to ensure

credibility of the data collected. Two of the interviews were co-coded by the researcher and the study supervisor to ensure that the coding was correct. Coding is a process of breaking data down into smaller parts and labelling them representatively.

3.8.2 Transferability

Transferability refers to the degree that the findings of a study can be applied to participants in another study or another context (Polit & Beck, 2018:296). The researcher used purposive sampling in this study so that specific information about the context could be obtained. This ensured that the researcher could obtain detailed information from the participants. The researcher conducted online interviews with the midwives until data saturation was achieved to ensure that all relevant information was obtained in the study. The researcher ensured that all activities were described richly and intensively in the research documentation. The findings were documented in a way that provided a detailed description of the experiences of midwives regarding informational continuity approaches during birth to allow readers to understand the phenomenon, thereby allowing them to compare the description of the findings of this study with what they had observed in similar circumstances.

3.8.3 Dependability

Dependability is described as an alternative to internal validity whereby the researcher attempts to determine whether the research process is logical, well documented and audited. This is an effort to ensure that the study makes clear sense and that the findings will be the same if the study were to be repeated with similar participants in the same context (Polit & Beck, 2018:296). For this study, the researcher ensured dependability by making sure that all the steps of the research process were well documented. The researcher further ensured dependability by using the same semi-structured interview guide for the purpose of the individual online interviews. The research supervisor reviewed the written accounts of each step of the study to ensure thorough documentation of each research step to confirm dependability of the study findings.

3.8.4 Confirmability

Confirmability is the degree to which the data collected by the researcher is a true reflection of the information provided by the participants during the interviews (Polit & Beck, 2018:296). The researcher ensured confirmability by sending the audio recordings and transcripts to the study supervisor for verification. The transcripts were compared with the audio recordings to check for accuracy of the transcripts. This was to ensure that the data collected was a true reflection of what the participants stated and as free as possible from bias by both the

researcher and the supervisor. The researcher further ensured credibility of the research findings by making use of bracketing. The researcher identified and set aside all preconceived opinions and beliefs regarding the phenomenon under study to ensure that the true lived experiences were reflected in the data collected from the participants. An audit trail of the study was kept and included the raw data, reduced and analysed data products, synthesised data products, process notes, field notes and a description of how themes and subthemes were maintained.

3.9 DATA COLLECTION PROCESS

Data collection is the detailed gathering of relevant information for the purpose of the study (Grove *et al*., 2015:47). The researcher collected data at the two MOUs involved during June 2021 and August 2021. The researcher had previously received training for conducting interviews at the Stellenbosch University Nursing Department. The researcher attended a workshop where her interviewing skills were assessed in the form of a role-play situation.

The main languages used in the geographical area of the study are English, Afrikaans and isiXhosa. The researcher is fluent in Afrikaans and English and performed both English and Afrikaans interviews. The isiXhosa participants were given the opportunity to be interviewed in isiXhosa by an interpreter; however, all of them declined since they were all fluent in English and therefore the interviews occurred in English. This allowed the participants to fully describe their experiences and to express their lived experiences in their own words. This ensured the collection of in-depth and rich data.

The researcher phoned the facility managers of the Elsies River and Bishop Lavis MOUs and asked for an appointment. The researcher visited the MOUs as arranged and met with the facility managers. During these meetings, the researcher clarified the purpose of the study with the managers and assured them that the study would not affect the daily functions of the midwives who would be willing to participate in the study. The researcher was granted an opportunity to enter the labour wards for the purpose of recruiting research participants. All COVID-19 protocols were adhered to.

Both the researcher and the midwives maintained social distancing and wore face masks during the information sessions in the MOUs. The researcher had hand sanitiser available for each SBA. All midwives who were willing to participate in the study signed the consent form using a pen provided by the researcher for each midwife to keep for herself. There was no physical contact between the researcher and the midwives.

The researcher had an information session with the midwives of both MOUs in the staff tea rooms. The researcher provided each participant with an information leaflet to introduce the study to them. The participants were given an opportunity to ask questions. During the meeting, the participants were informed that the online interviews would be recorded using a voice recorder and that consent to participate in the study would also include consent for the interview to be recorded. The participants were informed that they could withdraw from the study at any point where they felt that they no longer wanted to participate.

Before commencement of the online interviews, consent was obtained from the participants to share their contact details with the researcher. Consent to share their contact details was included in the consent form to participate in the study. The contact details were used to provide each midwife with a R100 data bundle for the purpose of the online interview and a separate data bundle for personal use to the value of R100 as a token of gratitude. The midwives were informed that they could withdraw from the study at any given time. They were also informed that if they wished to withdraw from the study, the information shared by them during the interviews would not be used in this study. The contact details of the researcher were included in the information leaflet so that the participants could contact the researcher should they wish to withdraw from the study. None of the participants withdrew from the study.

The online interviews were conducted after working hours in the participants' free time at a time agreed on by the participants to avoid inconvenience. To ensure privacy and confidentiality, the researcher conducted the online interviews in a private locked room. Anonymity was ensured by assigning a code (e.g., 001 indicating participant 1) to each participant that was used to label and distinguish among the transcripts. All the recordings and transcripts were saved, and password protected on the researcher's personal computer.

The interviews lasted 40 to 60 minutes to allow each participant enough time to share her experiences and to ensure that an adequate data collection process was followed. The researcher interviewed a total of 11 participants. After each interview, the recordings were transcribed verbatim by the researcher.

3.10 DATA ANALYSIS

Qualitative data analysis is the "integration and synthesis of non-numeric data that are reduced to themes and categories with the aid of a coding procedure" (Brink *et al*., 2012:58). Data analysis occurred after each individual online interview. The researcher adopted Giorgi's (1985) phenomenological analytical approach as the method for data analysis (Giorgi, 2009).

The steps are as follows:

- Step 1: Getting to know the data
- Step 2: Identifying meaning units
- Step 3: Regrouping meaning units into clusters
- Step 4: Transformation of the meaning units into descriptive expressions
- Step 5: Synthesis and integration

Each of these steps will be discussed in detail below.

3.10.1 Step 1: Getting to know the data

After each interview, the researcher listened to the audio recordings several times to familiarise herself with the data. The researcher transcribed each of the recordings verbatim, which further allowed the researcher to familiarise herself with the data. The researcher read the entire transcripts to understand the meaning of the experience through the participants' language. The researcher purposely bracketed all personal views and knowledge about informational continuity approaches during birth in MOUs. This was done to allow the researcher to view the experiences regarding informational continuity approaches during birth through the participants' lenses. The researcher compared the transcriptions with the audio recordings and made corrections where needed. The research supervisor also read the transcriptions of three interviews and compared these with the audio recordings of the participants.

3.10.2 Step 2: Identifying meaning units

Having grasped the essence of the whole, the researcher read and reread the interview transcripts again to extract significant statements pertaining to the experiences of midwives regarding informational continuity approaches during birth. The significant statements extracted from each transcript were related to the research objectives of the study. The researcher highlighted the significant statements in each participant's transcription. The researcher also identified all other statements that were meaningful in relation to the experiences of participants regarding informational continuity approaches during birth. Through this step, the researcher identified meaning units from the participants' experiences.

3.10.3 Step 3: Regrouping meaning units into clusters

Through this step, the researcher gained a fuller understanding of what the participants had said by identifying units that were relevant to the study and building a coherent structure of the meaning of their experiences. The researcher used the meaning units and extracted the lived nature of the constituents of each participant's experience and the interrelationships among those constituents. The constituents that were found to be relevant were regrouped according to their intertwining meanings so that they could express the experiences of participants as lived by them (Giorgi, 2009).

3.10.4 Step 4: Transformation of the meaning units into descriptive expressions

As a continuation of the previous step, this step involved understanding, judgements of relevance and coherent organising of the constituents of the experiences described by the participants. Through this process, the researcher identified sub themes and clustered them into several general themes that appeared to be common to all the participants' descriptions.

3.10.5 Step 5: Synthesis and integration

The researcher synthesised all transformed meaning units into a consistent statement of the structure of the interviewees' experiences (Giorgi, 1985). The consistent statement of structure contained a description of each informant's experiences regarding informational continuity approaches during birth. The researcher grouped the consistent statement of structures with similar ideas and meanings together. The researcher developed subthemes and themes in order to discuss the experiences of the informants as lived by them.

3.11 SUMMARY

The aim of the study was to explore the experiences of SBAs regarding informational continuity approaches that enabled effective care coordination during birth within PHC settings in the Western Cape. A qualitative descriptive phenomenological research design was used to achieve the objectives of the study. Individual online interviews with the use of a semi-structured interview guide were used as the method of data collection. The method for ensuring trustworthiness was discussed in detail. Purposive sampling was used, and data was analysed using Giorgi's (1985) phenomenological analytical approach.

3.12 CONCLUSION

The qualitative research approach with a descriptive phenomenological design was the most appropriate approach to achieve the aim and objectives of this study. This approach allowed the researcher to explore and describe the lived experiences of SBAs regarding informational

continuity approaches that enabled effective care coordination during birth within PHC settings in the Western Cape.

In the following chapter, the findings of the study will be discussed.

CHAPTER 4
FINDINGS

4.1 INTRODUCTION

In this chapter, the study findings will be presented and discussed. The chapter consists of two sections. Section A presents a discussion of the biographical data of the participants while section B describes the themes and subthemes that emerged from the data. The research question for this study was, “What are the experiences of midwives regarding informational continuity approaches that enable effective care coordination during birth within PHC settings in the Western Cape?” Data was collected using semi-structured online interviews that were audio recorded with midwives working in the Elsies River and Bishop Lavis MOUs. The audio-recorded online interviews were manually transcribed verbatim by the researcher directly into a Word document. Interviews were analysed to describe the experiences of midwives regarding informational continuity approaches that enabled effective care coordination during birth within the MOUs. Various quotations from the interviews were included within the narrative to verify the trustworthiness of the findings presented. Analysis of data was based on Giorgi’s (1985) phenomenological analytical approach to data analysis (Giorgi 1985, cited in Polit & Beck, 2018:283), as described in chapter 3. The findings of the study are discussed according to the objectives of the study, the themes and sub-themes that emerged and the conceptual framework of the study.

4.2 SECTION A: DEMOGRAPHICAL DATA

The sample for the study consisted of 11 midwives working in the Elsies River and Bishop Lavis MOUs. The midwives were recruited by the researcher at both MOUs. The researcher interviewed all midwives who were willing to participate in the study. Semi-structured online interviews using a semi-structured interview guide were used to collect the data. One pilot interview was conducted and included in the data obtained from the 11 recruited midwives. The pilot interview data was included in the study findings since the data was critiqued by the research supervisor and was found to be consistent enough to use in this study. All midwives were females and were permanently employed in the labour wards of the MOUs. The midwives’ working experience in the maternity units ranged from six months to eighteen years. The participants’ ages ranged from 25 years to 48 years. The midwives predominantly spoke English, Afrikaans and isiXhosa as their home languages.

Participant one was a 32-year-old midwife who had been working at Elsies River MOU for the past 4 years. She had experience working in the postnatal ward and the labour ward. She had

completed her community service year at Tygerberg Hospital and had since been permanently employed at Elsies River MOU and enjoyed supporting women during labour and delivery.

Participant two, the pilot study participant, was a 42-year-old midwife who had a qualification in advanced midwifery and neonatology. She had five years' experience of working in a Level one hospital in the labour ward where she did her specialisation. She had been employed at Elsies River MOU for the past 7 years working in the labour ward.

Participant three was a 36-year-old midwife who had been working at Bishop Lavis MOU for the past 8 years as a registered professional nurse and two years as an advanced midwife. She had experience working in the antenatal clinic and the labour ward.

Participant four was a 27-year-old midwife who had been working at Bishop Lavis MOU for the past 2 years. She had completed her community service year at Bishop Lavis MOU and had been permanently employed at the MOU in the labour ward for two years.

Participant five was a 35-year-old midwife who had been working at Elsies River MOU for the past 10 years. She had been a trained advanced midwife for three years. She had experience of working in the postnatal ward and had been working in the labour ward for two years.

Participant six was a 25-year-old midwife working in the labour ward at Elsies River MOU. She had six months experience of working in the labour ward at the time of data collection.

Participant seven was a 40-year-old midwife. She had been an advanced midwife for seven years and had been working at Elsies River MOU for the past twelve years. She had experience of working in the antenatal clinic and the labour ward.

Participant eight was a 38-year-old midwife who had been working at Bishop Lavis MOU for the past five years. She had completed her community service year at Karl Bremer Hospital and was permanently employed at Bishop Lavis MOU in the labour ward.

Participant nine was a 40-year-old advanced midwife who had been working in the labour ward at Bishop Lavis MOU for the past twelve years. She had worked at a tertiary hospital for 3 years in the labour ward before she was permanently employed at the MOU.

Participant ten was a 30-year-old midwife who had been working in the labour ward of Bishop Lavis MOU for the past three years. She had applied to complete her advanced midwifery and neonatology diploma at the time of data collection.

Participant eleven was a 48-year-old midwife with eighteen years' experience as a registered professional nurse at Bishop Lavis MOU and ten years' experience as an advanced midwife working in the antenatal, postnatal and labour ward.

4.3 SECTION B: THEMES EMERGING FROM THE INTERVIEWS

Four themes and ten subthemes emerged from the findings. The four themes that emerged were the communication of the midwives with pregnant women, the communication between the midwives and other health care providers, Documentation during birth and the use of standardised clinical guidelines in the MOUs.

The themes and subthemes are presented in Table 4.1 and table 4.2. Each of the themes is discussed under a separate heading.

Themes	Subthemes
The communication of the midwives with pregnant women	• The intention of communication between the midwives and pregnant women • The communication skills of midwives • The challenges experienced in communication with pregnant women
The communication between the midwives and other health care providers	• The importance of communication among midwives • The methods of communication among midwives and other health care providers during birth • The challenges of communication among midwives
Documentation during birth	• Documents used to communicate during birth • Information documented during birth
The use of standardised clinical guidelines in the MOUs	• The dissemination and implementation of clinical guidelines in the MOUs • The importance of clinical guidelines

Table 4.1: Themes and subthemes

Subthemes	**Meanings formulated**
The intention of communication between the midwives and pregnant women	– Providing prompt communication – Building a trust relationship with the women – Increasing the confidence of the women – Stimulating conversation between the midwives and the women – Decreasing the anxiety of the women – Providing the women with information to make informed decisions concerning their care – Facilitating cooperation of the women during birth
The communication skills of midwives	– Using a language that the women understand – Effective verbal and nonverbal communication
The challenges experienced in communication with pregnant women	– Language barriers between the midwives and the women – Women forget to bring MCRs with to the MOUs
The importance of communication among midwives	– Sharing information between midwives and other health care providers and ensuring continuity of care and care coordination during birth – Communication among midwives to prevent negative incidents – Assisting the midwives with decision making – Communication among midwives to promote the provision of quality and safe care during birth
The methods of communication among midwives and other health care providers during birth	– Written communication: Written communication in the MCR, information documented during birth, the partogram and the identify, situation, background, assessment and recommendation (ISBAR) tool – Verbal communication: Telephonic, during handovers and during staff meetings
The challenges of communication among midwives	– Incomplete documentation – Incomplete information recorded – Inadequate communication during handovers and referrals
Documents used to communicate during birth	– MCR, partogram and the ISBAR tool
Information documented during birth	– Maternal and foetal wellbeing
The dissemination and implementation of clinical guidelines in the MOUs	– Dissemination of clinical guidelines and protocols in the MOUs – Training for midwives before implementation of clinical guidelines – Challenges with clinical guidelines

The importance of clinical guidelines	– Ensure standardised practice of maternity care in the MOUs

Table 4.2: Subthemes and meanings formulated

4.3.1 Theme one: The communication of the midwives with pregnant women

This theme discusses the communication of the midwives with women during birth in the MOUs. This theme has three subthemes, namely the intention of communication between the midwives and pregnant women, the communication skills of midwives and the challenges experienced in communication with pregnant women.

4.3.1.1 The intention of communication between the midwives and pregnant women

The midwives provided various reasons for the intention to provide the women with prompt communication. The midwives provided prompt communication to the women in the MOUs from the time of admission. The midwives during communication shared information with the women, and at the same time, they sought information from the women. They started with history taking and obtained valuable information from the women and determined the women's preferences.

> *"I communicate with the women from the time that they enter the labour ward to obtain information regarding the women's history."* (Participant one)

> *"On initial contact with the woman, we will start to chat and get to know one another. I will share information with the woman and explain information to her regarding the birth process*." (Participant two)

One midwife stated that she communicated with the women continuously and kept them up to date with information concerning their treatment and care.

> *"I will continuously share information with the woman during birth to keep her up to date and well informed regarding her treatment and care".* (Participant five)

One midwife mentioned that the time that they spent with the women was used to allow the women to ask questions and to state whether they had questions or concerns regarding their care. This would create clarity for the women.

> *"I will listen to her and address her concerns; I will explain information concerning her care since this will create understanding."* (Participant eight)

All the midwives stated that the intention of communication was to build a connection with the women. They perceived that when they developed a relationship with the women through communication, it facilitated the development of trust between them and the women. The midwives described the trust relationship between them and the women during birth as very important as this allowed the midwives to provide women-centred care specific to the women's needs.

> *"Firstly, communication contributes to building trust relationships between me and the woman during birth. If there is trust the woman will trust me as the midwife to make decisions concerning her management during birth."* (Participant one)

> *"I will interact with the woman while doing the admission. During this time, just by communicating and being with her and listening to her, she will start to trust me and allow me to examine her."* (Participant 2)

However, one midwife said that if they did not build this trust relationship with the women, they did not interact with the midwife and they became hesitant to follow instructions.

> *"If the woman does not trust you as the midwife, you are not creating an environment that is conducive for her and her unborn baby."* (Participant one)

All the midwives mentioned that they communicated with the women to allow them to become confident. The increased confidence allowed the women to communicate more, thus stimulating conversation with the midwives during their stay in the MOU.

> *"Absolutely, the women become more confident. You can see this in their actions, they communicate their concerns freely."* (Participant one)

> *"Talking with the women increased the women's confidence and they became more willing to share information."* (Participant four)

All the midwives experienced that effective communication with the women stimulated conversation between them and the women during birth. The midwives mentioned that the more they communicated with the women, the more the women would interact with them and they became more talkative and willing to share information.

> *"Since they become willing to communicate their concerns and feelings without fear."* (Participant three)

> *"If you talk, the woman will also talk. She becomes motivated to ask things about her progress of labour and so on."* (Participant five)

All the midwives observed that women were generally scared and anxious when they came to the MOUs. This might be due to previous birth experiences or fear of the unknown. In order to decrease their anxiety, the midwives needed to communicate with the women continuously during birth.

> *"I will explain all the procedures to the women. When you do vaginal examinations to make them feel less anxious."* (Participant six)

> *"The women appear stressed and anxious, but when I explain things to them, they become calm and more at ease"* (Participant three)

All the midwives experienced that if during labour the women's progress was explained and they understood their current situation, the women became part of decision making regarding their treatment and care.

> *"Yes, this is so important. The woman needs to fully understand what is happening with her. The woman will become involved in her care"* (Participant one)

> *"If the women know what is happening to them and what procedures will be performed, they become part of decision making."* (Participant five)

Another midwife further elaborated that if the women were well informed regarding their treatment and care, they became more cooperative during birth. This made the birth process easier for both the midwife and the woman.

> *"This help with cooperation from the patient side, she will be more cooperative since she knows what to expect during the birth process."* (Participant two)

All the midwives agreed that women needed to be part of their care during birth. They stated that if they gave the woman regular updates on her progress of labour, she became more involved in her care.

> *"I will give her updates on her progress. If I do a vaginal examination, I will tell her, my dear you are 5 cm now you are halfway through. She will become part of her care since she will know what is happening to her."* (Participant nine)

> *"I will tell her; you are ready to have a baby now. I will give her the opportunity to decide which position for birth she wishes to adopt."* (Participant eight)

The midwives provided the women with prompt communication in the MOUs. They made it clear that prompt communication-built trust between them and the women. The intention of communication was to create an environment conducive to the wellbeing of the women as this helped the women to become calm, cooperative and less anxious. The midwives experienced that if they informed the women regarding their treatment and care, the women became more involved in their care and part of the decision making concerning their care. The midwives also agreed that if communication between them and the women was not effective, the women would not trust the midwives and would not cooperate during birth.

4.3.1.2 The communication skills of midwives

The midwives in the study adopted various communication skills whilst communicating with women during birth. The midwives explained that they communicated with the women in a language that the women understood. The midwives described the different communication skills, which included both verbal and nonverbal communication skills.

The midwives in this study encountered women from various foreign countries this included women from Somalian, Nigeria, and Congolese foreign nationals. The midwives in the study predominantly spoke English and Afrikaans. The midwives experienced that if they made use of a language that the women understood, the women became more willing to communicate with them. The midwives said that they gave the women the opportunity to choose between English and Afrikaans as the medium of communication.

> *"We interact with the women and try to speak in a language that the women understand. This improved communication since they understood the conversations."* (Participant five)

> *"It is difficult when they do not understand our language, but we try to use sign language with our hands to try and communicate or give instructions."* (Participant seven)

The effective verbal communication skills included speaking in a polite manner with a calm and soft but audible tone of voice during communication with the women.

> *"I will speak in a polite manner with her. The women are already so anxious, but if I am nice to the women, it becomes easier to communicate with them."* (Participant four)

> *"If you are calm and speak in a soft but audible tone of voice with the women, the women become calmer and they appear to be less anxious."* (Participant six)

The midwives described nonverbal communication as an important tool of communication that showed a person's attitude and emotions. It was clear during the interviews that the midwives

made use of nonverbal communication to communicate effectively with the pregnant women. The effective nonverbal communication skills included active listening, maintaining eye contact with the women, professional mannerism, appropriate facial expressions and appropriate body movements. The midwives further described how they always maintained professionalism and a positive attitude during communication with the women to facilitate effective communication.

One of the midwives mentioned that if she displayed a non-judgmental attitude during communication, the women became more relaxed and interested in the conversation.

> *"If you are non-judgmental and show acceptance towards the women during communication, they are more relaxed and willing to participate in the conversation."* (Participant four).

Another midwife further elaborated and said that if she displayed a calm and friendly attitude during conversations, it prompted the women to also be calm and to be part of the conversation.

> *"If you're friendly and have a calm attitude during communication with the women, the women will freely participate in the conversation."* (Participant two)

> *"I will also calm her by making eye contact with her. If my body language and attitude are calm my patient will be calm."* (Participant two)

One midwife relayed that one's body language during conversations should display professionalism. The midwife described this as having a professional appearance, sitting in the correct position toward the women and maintaining eye contact with the women.

> *"Also, you are going to acknowledge the woman. You are going to look at the woman. You are not going sit or lie on the bed when talking and seem like you are not really interested when talking to the woman. Your body language should give off like a professional vibe to the patient."* (Participant three)

All the midwives stated that if they treated the women with respect, the women would feel more comfortable and show respect to the midwives and would be cooperative and willing to communicate.

> *"If you show respect to the patient during communication, you will see how the women become comfortable and will respect you as the midwife*." (Participant eight)

> "*If you speak in a loud screaming tone of voice and in a disrespectful manner your patient will be very uncooperative and will not communicate with you freely*." (Participant four)

Effective communication skills such as conveying respect, being calm and polite and communicating in a language that the women understood contributed to women having a positive birth experience. Effective verbal and nonverbal communication skills during communication were an important element for the midwives in maintaining effective communication and facilitating the development of relationships with the women during birth, and this contributed to a positive birth outcome for the women.

4.3.1.3 The challenges experienced in communication with pregnant women

The midwives experienced various challenges in communication with pregnant women, including language barriers and missing MCRs during management and treatment in the MOUs. During the interviews, the midwives mentioned that they provided care to women from diverse cultures. They experienced that communication could become difficult if a woman spoke a foreign language since it was difficult to explain procedures and to create understanding when trying to convey a message to her. The midwives mentioned that they would often get another person who understood the woman's language to act as an interpreter to convey the information to the woman. This could be the woman's husband, partner or another patient upon consent from the woman.

> *"We try our best to communicate with the women, but if they do not understand our language, we are unable to explain to them what is expected of them."* (Participant one)

> *"Communication becomes difficult for me if the woman speaks a foreign language. I try to communicate but can clearly see that the woman does not understand what I am trying to say to her."* (Participant five)

The midwives often experienced feelings of frustration since they were unable to effectively communicate with women from foreign countries.

> *"I will explain certain information to the women and can see they do not understand. This makes me frustrated."* (Participant seven)

All the midwives stated that the MOUs should employ interpreters to assist them in effectively communicating with the women during birth.

> *"Interpreters will really be a big help to assist with communication with the women who speak foreign languages."* (Participant three)

> *"Interpreters will be a big help, since our women are so diverse. This will enable us to share important information with them and they will be able to communicate with us during birth."* (Participant eight)

All the midwives mentioned that missing MCRs was a challenge to communication and that they found it difficult to provide continuity of care to the women. Women sometimes arrive without their MCRs on admission at the MOUs, and some of the women's maternity records are lost or misplaced at home. The midwives will therefore have to treat the woman as an unbooked client and start with all the baseline tests. They will also have to do a scan to determine the gestation of the baby.

> *"The women sometimes come to the MOU without their maternal case records and we will have to do all the booking tests again. This makes it difficult because we will have no information."* (Participant nine)

> *"Oh, you know this is so time consuming since we have to repeat all initial procedures that were done during the pregnancy to ensure we follow up on her care."* (Participant 10)

The midwives relayed that they felt frustrated and that they tried their best to communicate with all women during birth, but they still could not communicate with certain pregnant women due to language barriers. The midwives added that when the pregnant women spoke a foreign language, understanding the message was difficult and presented a challenge to effective communication for the midwives. If MCRs were missing or if the women did not bring their booklets along to the MOU, it resulted in the repetition of previous interventions, which was time consuming and impeded effective communication between the midwives and the women since the booklet contains the history of the pregnancy.

4.3.2 Theme two: The communication between the midwives and other health care providers

This theme discusses communication between midwives and other health care providers. The theme will be discussed under three subthemes, namely the importance of communication among midwives, the methods of communication among midwives and other health care providers during birth and the challenges of communication among midwives.

4.3.2.1 The importance of communication among midwives

Communication of information regarding the women's treatment management and care was very important to the midwives. All the midwives mentioned that sharing information contributed to effective care coordination among themselves as midwives within the MOUs and that care could then be provided as per the specific needs of the women.

> *"We share the responsibility to take care of women. We need to be informed because we share the responsibility to provide care to the women. This allows us to follow up on care and to ensure care is continuous."* (Participant ten)

> *"The women are all different and require different care, so if we as midwives share information among each other regarding the care needs of the women, it enables care of the women to continue during birth."* (Participant seven)

One midwife stated that sharing information among themselves contributed to the prevention of negative incidents and promoted the provision of quality care and the safety of the women in the MOUs.

> *"Sharing information with the other midwives is important. Having all information regarding women during birth enables you as the midwife to provide safe maternity care."* (Participant five)

All the midwives agreed that sharing information among themselves allowed them to make informed decisions regarding the women's treatment and care.

> *"If we as the midwives are well informed by one another regarding a woman's management and care during birth, we are enabled to make informed decisions regarding the woman's care."* (Participant three)

4.3.2.2 The methods of communication among midwives and other health care providers during birth

All the midwives stated that they used different methods of communication to share information among themselves within the MOUs and with other health care providers at the transfer facilities. The different methods were described as written communication by using different documents that formed part of the MCR and verbal communication that included telephonic communication and communication during handover rounds and staff meetings.

The midwives discussed the importance of documentation and how it assisted them with providing quality care to the women during birth and improved care coordination among themselves as midwives.

> *"The documents are a tool of communication between us as midwives and allow for care coordination among us as midwives*." (Participant three)

> *"We use information recorded in the in the MCR to communicate information among us as midwives to ensure that all midwives have the same information regarding the women."* (Participant eleven)

During the interviews, the midwives described the methods of communication with transfer facilities when women are transferred from the MOUs to a higher level of care facility. The midwives communicate verbally over the phone during transfers. They stated that communication and sharing of information with transfer facilities assisted the transfer facilities to plan for the care of the women. This also ensured for swift referral of women from the MOUs to next-level facilities.

> *"We phone the midwives and obstetricians at the referring facilities. This information that we share will assist them to continue the care as needed by the women upon arrival."* (Participant nine)

> *"We discuss the women with the obstetric doctors. They will give instructions to us over the phone on how to further manage the women before transfer."* (Participant three)

The midwives made use of handover rounds between shifts and when relieving each other for breaks. This ensured care continuity among themselves.

> *"We hand over to one another. This handover will include all relevant information concerning a woman's progress during birth."* (Participant three)

> *"Between shifts we will have a handover round from bed to bed to ensure the care of the women is continuous."* (Participant five)

The midwives also discussed how they had regular staff meetings during their shifts to share information and collaborate with each other to provide high-quality maternity care to the women during birth.

> *"We will have regular meetings during our shifts. We use these meetings to discuss management strategies as well as plans for management of women in the MOUs."* (Participant six)

There is continuous communication among the midwives in the MOUs during birth. This ensured continuity of care for the women and care coordination among the midwives. The

midwives mostly communicated telephonically and through documentation with the transferring facilities. As mentioned before, the midwives made use of different methods of communication to assist with sharing information among themselves and with the other members of the multidisciplinary team within the MOU. These methods included handover rounds and staff meetings. All the methods mentioned by them contributed to sharing holistic information concerning the women in labour among themselves. The sharing of information among the midwives ensured that all midwives had the same information and were up to date with the women's treatment and care plans. This enabled care of the women to continue and coordination of care among the midwives.

4.3.2.3 Challenges with communication among midwives

The midwives described various challenges with communication among themselves and with other health care providers at transfer facilities. This included incomplete documentation, incomplete information documented, inaccessible records and inadequate communication during handovers and referrals.

> *"Sometimes the documentation in the women's maternity case record is incomplete. This makes it difficult to follow up on the women's treatment and care."* (Participant nine)

> *"They will perform vaginal examination and will not record this information on the partogram. This results in duplication of vaginal examinations which causes discomfort for the women and puts the women at risk of developing infections."* (Participant four)

The midwives sometimes experienced difficulty with documentation since more than one midwife provided care to the women in the MOUs. One midwife might be busy documenting while the other might be busy observing the woman and will not have the MCR to record the findings. The findings were sometimes recorded on a separate page to be recorded later, which might lead to information not being recorded.

> *"If another midwife is busy with the woman's maternity case record, we record the information on a separate note and will record the information on a later stage, but if the MOU gets busy you can easily forget to record this information and this may lead to miscommunication and errors in record keeping."* (Participant eight)

The midwives provided maternity care to several women at the same time, and sometimes the MOUs became very busy, which could result in MCRs being misplaced or even mixed up among women's files.

> *"If the MOU gets busy, the maternity case records get mixed up or sometimes even misplaced, since we as midwives provide care to several women at the same time."* (Participant two)

The midwives also mentioned that during handovers, sometimes the midwives did not hand over all the necessary information regarding the women, which could interfere with the continuity of care for the women.

> *"They are in a hurry when handing over to catch their transport and sometimes forget to share important information regarding the women."* (Participant six)

Various challenges with communication were mentioned by the midwives during the interviews. The midwives identified incomplete documentation and incomplete information recorded during birth as a challenge with communication. The midwives stated that this might result in duplication of intervention for the women and might cause them unnecessary discomfort, for instance when procedures were not recorded and were duplicated. These could include speculum examinations or vaginal examinations, which could be uncomfortable for the women. The midwives mentioned that the incomplete handover of information concerning the women might interfere with the continuity of care for the women and mismanagement during birth. They also mentioned that missing MCRs may lead to important information not being accessible and that this could be time consuming and may negatively influence the continuity of care for the women.

4.3.3 Theme 3: Documentation during birth

Documentation during birth formed part of communication during birth among the midwives in the MOUs. During the interviews two sub-themes emerged namely, documents used to communicate during birth and the information documented during birth.

4.3.3.1 Documents used to communicate during birth

The midwives described the various documents used to communicate with other midwives and with other health care providers at transfer facilities. All the midwives said that they used the partogram to share information regarding the women's condition and the progress of labour.

> "*We use the partogram to document both maternal and foetal observations. This document is used by us to share information among us as midwives*." (Participant five)

All the midwives made use of the MCR to share information with the transfer facilities. The documents accompany the women when they are transferred. The midwives mentioned the ISBAR tool. The form is a clinical report on a woman's maternity situation and is filled in in duplicate within the MCR.

> *"We make use of the ISBAR form, which is the identify, situation, background, assessment, and recommendation sheet, which includes information concerning both maternal and foetal observations. The document is valuable when emergencies arise, and during transfers to share information with other midwives or obstetricians at the transferring facilities."* (Participant one)

4.3.3.2 Information documented during birth

The midwives mentioned that documentation was important when caring for women during labour and delivery. Documentation during birth includes a written description of the management and care provided to the pregnant women. The midwives discussed the information that they documented during labour.

> *"We document all information concerning the wellbeing of the women in the maternity case record to ensure holistic sharing of information regarding the pregnant women during transfers."* (Participant two)

> *"The maternal condition will include all observations, BP, pulse rate, temperature, urine output. The baseline observations will be shared as well as the entire observation report from the time the woman entered the MOU. The labour assessment including cervical dilatation, effacement, head above brim, station of presenting part, position of presenting part and foetal lie, if membranes are ruptured or intact, if ruptured if it is clear or meconium stained, time of rupture to determine if prolonged, the foetal condition including foetal heart rate for duration of time when patient is in labour."* (Participant five)

> *"The information is all about the woman in labour. The condition of the pregnant woman, the progress of labour, the maternal and foetal condition, risk factors of the woman if any, and the interventions done so far."* (Participant three)

The midwives described the use of the partogram during labour and delivery. The midwives were well informed regarding the use of the partogram during labour management. All of them were knowledgeable about the information recorded on the partogram. They said that the partogram was used to record information about the woman upon admission to the maternity unit when a diagnosis of labour is confirmed. The woman will be observed until she is in the active phase of labour, which means that she is 5 cm dilated. The midwives will then transfer

the information to the active labour side of the partogram until the woman is fully dilated. The information is manually recorded by the midwives onto the partogram, and they will interpret the findings in order to decide on a management plan.

> *"We will share information on the women's progress of labour by using the partogram. The findings after the examination of the women will be recorded on the partogram."* (Participant one)

> *"This is a very holistic tool which includes all maternal and foetal information and is easy to use when transferring information between midwives, doctors, students, nurses and referral facilities."* (Participant three)

The midwives used the ISBAR form as a tool of communication during labour. The ISBAR form is a clinical report that is part of the MCR. It includes all information regarding the current maternity situation of a woman and is completed by the midwives in duplicate in the MCR.

> "*We make use of the ISBAR form to share information concerning the woman, which includes all baseline information concerning both maternal and foetal observation."* (Participant ten)

> *"We chart all information regarding the woman's current situation during labour. If complications arise, we transfer the patient with the maternal case record to the next level facility and in this way all midwives caring for the woman will have the same information concerning the woman's treatment and care"* (Participant 2)

The midwives stated the importance of complete and accurate documentation during birth. Good record keeping was found to be an integral part of maternity care provided by the midwives. Documentation was described as a continuous process by the midwives. The documents used were standardised care records, which included the MCR, the ISBAR tool, the early warning chart and the partogram. The midwives discussed the information that they recorded in these documents, which included both maternal and foetal information. The midwives also made use of handover rounds and staff meetings to share information and collaborate with each other. The methods of communication discussed by the midwives assisted them with care continuity and care coordination within the MOUs.

4.3.3 Theme Four: The use of standardised clinical guidelines in the MOUs

The theme will be discussed under two subthemes, namely the dissemination and implementation of clinical guidelines in the MOUs and the importance of clinical guidelines.

4.3.3.1 The dissemination and implementation of clinical guidelines in the MOUs

Clinical guidelines are developed and regularly updated by experts from all nine provinces in South Africa because of the advances in medicine and the publication of research results of recent evidence-based clinical trials. The national guidelines are developed at provincial and institutional level. The National Department of Health supports the distribution of and training on the clinical guidelines and monitors the use of clinical guidelines. The midwives in the MOUs receive the guidelines from their operational managers.

All the midwives agreed that if the clinical guidelines were changed or if amendments were made, all staff would be informed by the manager on all shifts to ensure that all staff had the latest information regarding the guidelines.

> *"Whenever the guidelines change or amendments become available the operational manager will make sure that we receive the information regarding the changes."* (Participant three)

> *"The information sessions will be provided on both day and night shifts to ensure we are all up to date with the clinical guidelines."* (Participant two)

During the interviews, the midwives explained that they had a file with the maternity care guidelines readily available in the MOUs. They used the guidelines to stay up to date with recent evidence-based findings on the management of women during birth.

> *"We discuss new guidelines to stay up to date with the latest information within the guidelines."* (Participant three)

However, all the midwives stated that they received very little training when new guidelines became available, which was one of the challenges that they experienced within the MOUs. The operational managers sometimes had information sessions to inform staff of any updates on the clinical guidelines within the MOUs, but the midwives rarely received training on the clinical guidelines.

> *"The operational managers will provide us with the information if any updates on clinical guidelines become available, but we do not get the necessary training".* (Participant five)

When asked how they were prepared for the implementation of new guidelines, one midwife said the following:

> *"We just implement new clinical guidelines to improve the quality of maternity care and to prevent morbidity and mortality".* (Participant six)

The midwives felt that they should be part of the development of clinical guidelines since they were the ones implementing the guidelines.

> *"We are not part of developing these guidelines. We implement the guidelines; I think we should be part of writing up of guidelines since we implement them and can link our clinical experiences."* (Participant ten)

4.3.3.2 The importance of clinical guidelines

All the midwives stated that the clinical guidelines on maternity care were important as they guided the care that the midwives provided to women during birth in the MOUs.

> *"We use guidelines to guide us all the time. The guidelines is very important for us. In the MOU we will use the guidelines developed from the maternity care guidelines of South Africa to manage and treat women during birth."* (Participant seven)

Another midwife explained that they would use the clinical guidelines to guide their care if complications arose during birth.

> *"In the MOU the clinical guidelines is important for us. This guide us on how to manage a woman and on when to act and how to act if an abnormality arises. So, we refer to them all the time."* (Participant three)

All the midwives had a considerable amount of information on the guidelines used in the MOUs that they shared during the interviews. They elaborated and said that the guidelines in the MOUs were also important since it is used to educate and inform all new staff and students working in the MOUs.

> *"The guidelines are clear and easy to understand. If new staff and students are placed in our institution, we make sure that they are well informed by doing in-service training on the maternity guidelines."* (Participant four)

Some of the midwives stated how important the clinical guidelines were to them. One midwife said that the maternity guidelines guided them on how to stabilise women during transfers to next-level facilities. She mentioned that these guidelines saved lives.

> *"The guidelines allow us to transfer women during the birth process to a higher level of care facility timeously if abnormalities arise. The guidelines save lives".* (Participant five)

The midwives explained how valuable and important the clinical guidelines were to them in the MOUs. They stated that the guidelines guided their management, care and decision making regarding the appropriate management of the women during birth. They also mentioned how they were trained on the guidelines within the MOUs. However, they also discussed certain challenges that they experienced with the clinical guidelines, which included the fact that they were not part of the development of these guidelines, and they rarely received training on the guidelines. The midwives felt that they were the ones implementing the guidelines and protocols and should therefore be part of developing them.

4.4 SUMMARY

In this chapter, the findings of the study were presented. Three major themes emerged, namely the communication of the midwives with pregnant women, the communication between the midwives and other health care providers, and the use of standardised clinical guidelines in the MOUs.

4.5 CONCLUSION

The findings about the experiences of midwives working in the MOUs providing care to women during birth regarding informational continuity approaches during birth to enable effective care coordination were discussed in this chapter. Communication during birth was described by the midwives as an important element in providing quality maternity care during birth. Communicating with the women during birth allowed them to trust the midwives. The communication with the women had various benefits, including decreasing anxiety and motivating the women to be more cooperative during birth. Communication was experienced by midwives as a continuous process among themselves and with the women and other members of the multidisciplinary team. However, the midwives also experienced various challenges to communication, which included language barriers, incomplete documentation, and the fact that they were not involved in the development of the clinical guidelines.

In Chapter five the discussion, conclusion and recommendations of the study will be presented.

CHAPTER 5
DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The previous chapters provided a background and overview of the study. The literature review in Chapter two provided a description of the intrapartum period and of the role and functions of a midwife and highlighted the importance of communication through all stages of labour and delivery, informational continuity, continuity of care and care coordination among midwives working in MOUs. Maternal mortality and morbidity statistics in MOUs, the levels of maternity care and referral chains in the Western Cape PHC settings, and the maternity services provided were discussed. Chapter three provided a description of the research methodology that was applied in this study. The study adopted a qualitative descriptive phenomenological research approach using semi-structured online interviews to achieve the aims and objectives of the study. The researcher made use of bracketing, whereby the researcher purposely set aside any preconceived ideas about the phenomenon under investigation. The preconceived ideas of the researcher derived from previously working as a student midwife in MOUs. Chapter four presented the findings of the study. The current chapter provides a discussion of the research findings in relation to the literature and a conclusion and recommendations based on the findings.

5.2 DISCUSSION

The aim of the study was to explore the experiences of midwives regarding informational continuity approaches that enabled effective care coordination during birth within PHC settings in the Western Cape. The literature review did not reveal any research conducted specifically on the experiences of midwives regarding informational continuity approaches within the primary health care settings and how this influenced care continuity during birth. Therefore, the researcher found it important to conduct research on this phenomenon. The researcher conducted online interviews with midwives working in the Elsies River and Bishop Lavis MOUs. Data collection occurred during the COVID-19 pandemic when gatherings in confined spaces and physical contact between people were not allowed; therefore, the researcher made use of online interviews for data collection. During the interviews, the researcher explored the midwives' lived experiences regarding the phenomenon. This provided an authentic account of the lived experiences of the midwives. The findings of the study will be discussed according to the objectives, main themes and subthemes that emerged during data collection and data analysis within the context of the literature.

The research objectives of the study were:

RO 1: To explore the experiences of midwives with the positive patient-provider communication approach for effective care coordination during birth.

RO 2: To explore the experiences of midwives with the collective memory approach for effective care coordination during birth.

RO 3: To explore the experiences of midwives with the shared synchronised care records approach for effective care coordination during birth.

RO 4: To explore the experiences of midwives with standardised clinical guidelines for effective care coordination during birth.

The research objectives of the study derived from the conceptual framework of the study, namely the IMB model. The objectives were only based on the health behaviour information construct of the model.

5.2.1 Objective one: To explore the experiences of midwives with the positive patient-provider communication approach for effective care coordination during birth

Patient-provider communication refers to the shared and mutual understanding of information between the midwives and the pregnant women in the MOUs. The WHO describes the relationship between pregnant women and midwives as a positive patient-provider relationship (WHO, 2018a:18). Midwives should communicate with women effectively during the intrapartum period and inform them of the care required and in certain instances why their care is changing. This objective will be discussed under three subthemes, namely the intention of communication between midwives and pregnant women, the communication skills of midwives and the challenges experienced in communication with pregnant women.

5.2.1.1 The intention of communication between midwives and pregnant women

The midwife is a key component of labour and birth. Midwives provide the necessary support and assist pregnant women safely through childbirth. Effective communication between pregnant women and midwives is an important factor in the women's satisfaction and the provision of safe maternity care (Ahmed, 2020:2). The WHO recommendations on intrapartum care for a positive childbirth experience stipulate effective communication using culturally accepted methods and skills between women and midwives during labour (WHO, 2018b:3). The relationship between the pregnant woman and the midwife is a pertinent issue during childbirth. For the midwife to fulfil this role, communication should be effective to promote a positive relationship between the woman and the midwife (Ahmed, 2020:2).

The midwives in this study all provided women with prompt communication to develop a connection with the women from the time of admission to the MOUs. The midwives relayed that during history taking, they would obtain valuable information from the women and share information with the women. The findings are supported by the WHO (2016:22) in the standards for improving quality of maternal and newborn care in health facilities, which state that effective communication is an essential component of the provision of quality care for women during birth and that prompt communication with the women will ensure that they receive adequate information regarding their care and will facilitate effective interactions with health care providers (WHO, 2016:22). This was also noted in a qualitative study done in urban Tanzania where midwives practised good communication skills by providing women with timely advice during consultations, which had a positive effect on the quality of maternity care (Shimoda, Horiuchi, Leshabari & Shimpuku, 2018:4).

The midwives all mentioned that they communicated with the women to build a trust relationship between them and the women. The trust relationship allowed women to be more cooperative during birth, and women became more willing to share information with the midwives. Similarly, in a descriptive phenomenological study done in Western Australia in a public hospital where midwives independently provided maternity care to women in the labour ward, midwives emphasised the importance of developing a connection with the women in the maternity units through effective communication, which enabled them to build trust relationships with the women and encouraged the women to utilise maternity services at a health facility (Bradfield, Hauck, Duggan & Kelly, 2019:6). The trust relationship between pregnant women and midwives was emphasised in the literature in a qualitative study done in Gauteng Province, South Africa, in an independent maternity hospital. The study explored the experiences of midwives in providing care to labouring women, and it was noted that the quality of the relationship between the midwife and the woman is an important factor in the quality of midwifery care and key to a positive experience during birth (Bo'Borrelli, 2014:7-8). The relationship between the woman and the midwife is a pertinent issue during childbirth; therefore, communication should be effective to promote positive relationships between the woman and the midwife (Ahmed, 2020:2). The midwives in this study revealed that if a trust relationship was not present between the pregnant women and the midwives, the women were hesitant to interact with the midwives and were very uncooperative during birth.

Most of the midwives stated that when they communicated with the women, their level of confidence increased. They mentioned that they could see this in the women's actions. The women became calmer and more readily allowed them as midwives to perform certain procedures and examinations in the MOUs. Likewise, in a participant observation study done

in a public hospital in Limpopo Province in South Africa, it was found that effective communication between the pregnant women and the midwives had various benefits for the women, which included enabling the women to feel relaxed, special, confident and empowered (Maputle, 2018:4).

Some of the midwives stated that women were anxious upon entering the MOUs, but if they communicated effectively, the women became more relaxed and less anxious. The midwives noted that if the women were at ease, they became more talkative and willing to share information with them. This was also noted in a qualitative study done in two nonteaching hospitals in Tehran, Iran, in which midwives stated that pregnant women were very worried about their own health status and that of their unborn babies and that creating good relationships through communication with the women would ensure a friendly atmosphere in order to preserve respectful maternity care (Moridi *et al*., 2020:4). Likewise, the findings are supported by the eight standards of care in the WHO quality of care framework. Standard 4 states that effective communication between midwives and the women in their care can reduce unnecessary anxiety, promote interactions and create a positive childbirth experience (WHO, 2016:22).

All the midwives in the present study said that if the women were well informed regarding their progress of labour, they became more participative in their care. The midwives stated that communication with the women during birth was therefore a critical factor in a positive birth outcome. This finding is supported by Maputle (2018:2), who found that if mothers during labour were provided with full and accurate information regarding the childbirth process, midwifery and intrapartum care, it had a positive influence on the women's labour and delivery experience. The midwives in this study described how they regularly informed women about their treatment and care during birth. They said that they kept the women well informed to allow them to make informed decisions regarding their care. Similar to the findings of a qualitative study done in Iran in two nonteaching hospitals regarding respectful maternity care during labour, the midwives described the importance of involving women in their care by providing them with adequate information, involving them in decision making and communicating in a respectful manner (Moridi *et al*., 2020:1).

Some of the midwives revealed that the women became more cooperative when they were well informed regarding their care and progress of labour. Most of the midwives stated that if the women were cooperative, it became easier for them to perform vaginal examinations as these were often very uncomfortable for the women. Similarly, in a study done in Western Kenya, health care providers mentioned that effective communication between them and the pregnant women improved interpersonal interactions. The providers said that building a

rapport and making women feel comfortable through communication increased the women's confidence in the health care providers, decreased resistance to care, stimulated conversations and promoted cooperation (Fulani, Buback, Kelly, Kirumbi, Cohen & Lyndon, 2020:7).

5.2.1.2 The communication skills of midwives

The midwives described the various verbal and nonverbal communication skills adopted by them during communication with the women in the MOUs. The midwives mentioned that they respected the women's cultural differences by using a language that the women understood when they communicated with the women. The midwives provided services to a diversity of women. This included women who predominantly spoke Afrikaans, English and Xhosa and women from Somalia.

According to the standards of proficiency for midwives published in 2019 by the Nursing and Midwifery Council, Domain 6 refers to all the midwifery skills needed during communication (Nursing and Midwifery Council, 2019:33). The skills for communicating with women should consider a woman's needs, views and preferences. The midwife should affectively listen and respond to verbal and nonverbal cues and make use of positive verbal and nonverbal reinforcement.

In this study, one of the midwives described the verbal communication skills used during communication with the women in the MOUs. This included speaking clearly and in a soft but audible tone of voice during interactions with the women. This finding is similar to that of a study done in Limpopo Province, South Africa, to explore and describe the experiences of midwives regarding the management of women in labour, in which it was found that midwives were open and supportive towards women through verbal communication and that they listened to the women in order to understand their unique wishes and differences (Maputle, 2010:9).

The midwives further revealed the nonverbal communication skills used during communication, which included body language, facial expressions and maintaining eye contact during communication. One of the midwives described how she maintained a professional posture by sitting up straight and not lying over the woman or sitting on her bed during communication with her. A midwife said that she looked at the woman when talking and acknowledged the woman during communication. Another midwife described how she attentively listened to the woman and made eye contact during conversations.

The findings are in line with Domain 6 of the standards of proficiency for midwives that asserts that a midwife should use appropriate nonverbal and verbal communication techniques including touching, making eye contact, respecting personal space, using clear language and being able to adjust when appropriate to optimise women's and their families' understanding of their health and well-being. This includes the recognition of the need for and access to interpretation and translation services (Nursing and Midwifery Council, 2019:33).

According to the PHC Package for South Africa (National Department of Health, 2001:17), midwives working in MOUs have the responsibility to effectively communicate with pregnant women in the MOUs. As outlined in the PHC Package, one of the core health care staff competencies is to prevent the breakdown in communication between patients and staff and to ensure that patients are treated with courtesy in a client-orientated manner to reduce emotional barriers to access of health facilities.

5.2.1.3 The challenges experienced with communication with pregnant women

In the present study, all the midwives experienced communication challenges with women from foreign countries, such as Somalian women who did not understand the main languages of communication predominantly used in the MOUs, namely English, Afrikaans and isiXhosa. All the midwives mentioned that they provided maternity care to women from Somalia and that often these women did not understand or only partially understood the main languages used in the MOUs and that they were thus unable to effectively communicate with the women. This made it challenging for the midwives to instruct, update and support the women during labour. This was also found in the study done in Limpopo Province in a hospital that provided maternity care to different racial groups and in which language barriers were found to be a challenge to effective communication with the women. The midwives found it difficult to communicate with the women from foreign countries that were transferred to the hospital if the women spoke a language different from that of the midwives (Maputle, 2010:10).

In this study, the midwives stated that language barriers had a huge impact on communication with the women from Somalia in the MOUs. One of the midwives said that it was difficult to create understanding since most of the Somalian women could not understand or speak English. The midwives relayed that the women from Somalia were often accompanied by a partner or a family member who could speak English. The midwives would then ask them to act as translators upon the women's consent. This facilitated effective communication with the Somalian women. The midwives said that employing interpreters or including the women's partners or family members as translators would be a big help in bridging the communication barrier between them and the Somalian women in the MOUs. Most of the midwives agreed that the facility should employ interpreters to assist them with effective communication with

these women. Likewise, a qualitative study of language barriers between South African health care providers and cross-border immigrants done in Cape Town in the Western Cape Province of South Africa found that language barriers were a major challenge to effective communication with migrant women, including women from Somalia. The findings of the study demonstrated that professional medical interpretation might be a vital part of access to health care in cases where providers and patients lacked a common language (Hunter-Adams & Rother, 2017:6).

Women coming to the MOUs without their MCRs was another challenge in communication. The MCR was introduced in 2010 as one of the interventions to improve maternity care of pregnant women. The MCR includes all information regarding the woman's current pregnancy and obstetric history. This is a client-held record and an official tool of communication between the different levels of care and health facilities. All pregnant women who present to a health care facility should receive an MCR that should be completed at each visit (National Department of Health, 2015:29-30). Most of the midwives in this study revealed that the women at times forgot to bring their MCRs along to the MOUs upon arrival in labour. The midwives mentioned that this was very time consuming for them since they had to repeat all booking tests and history taking, which ultimately affected the continuity of care for the women in the MOUs by delaying care. The midwives also relayed that not having all the antenatal care history available in the MCR resulted in fragmentation of care and poor continuity of care for the women. Essential information such as results of special investigations would be missing, leading to duplication of work (WHO, 2018:9). This finding was also supported by Gowda, Kumar, Arya and Vikas (2020:6) who noted that a lack of clinical information often caused informational discontinuity and might negatively influence the treatment and care of pregnant women.

According to the IMB model, the health information behaviour construct refers to the patient-provider relationship (Fisher *et al*., 2003:37-38). According to the IMB model, the patient-provider relationship is the health information behaviour that motivated the midwives to adopt the skills necessary to effectively communicate with women during birth. The skills necessary to ensure a positive patient-provider relationship included positive attitudes, appropriate communication skills and professionalism. These skills were portrayed by the midwives in the current study to effectively communicate with women during birth. Hence, the findings of the study indicated that midwives had positive patient-provider relationships with women during birth.

5.2.2 Objective two: To explore the experiences of midwives with the collective memory approach for effective care coordination during birth

Collective memory refers to the sharing of knowledge and communication of information among the midwives regarding pregnant women in the MOUs and with other health care providers at referral facilities to ensure that all midwives and other health care providers have the same information regarding the women in their care (WHO, 2018a:18). Communication involves communication among the midwives in the MOUs and with other health care providers at transfer facilities.

In the MOUs, the midwives adopted various methods of communication as relayed during the interviews. The midwives mentioned the various methods of communication, which included verbal communication that took place face to face and telephonically with other health care providers, nonverbal communication and written communication. The midwives also discussed the information that was documented during birth in the MOUs. This objective will be discussed under three subthemes, namely the importance of communication among midwives, the methods of communication among midwives and other health care providers during birth, the sharing of information among midwives and other health care providers and the challenges experienced by midwives with communication.

5.2.2.1 The importance of communication among midwives

Communication among health care providers in all care settings is classified as one of the approaches identified for optimising care coordination in health care settings (WHO, 2018a:18). Within MOUs, midwives are the primary caregivers of pregnant women. The midwives in this study relayed the importance of communication among themselves in the MOUs and with other health care providers at transfer facilities. During the interviews, all the midwifes said that they had a shared responsibility to provide care to the pregnant women in the MOUs and that they therefore communicated whilst they provided care to the women through handovers to allow for the care of the women to continue and to facilitate care coordination among the midwives in the MOUs and health care providers at transfer facilities. This finding is supported by a study done in Australia that found that informational continuity and collaboration among health care providers were of paramount importance for the provision of safe maternity care and to ensure care coordination and continuity of care for women during birth (Downe *et al*., 2010:250).

The midwives agreed that the seamless communication among themselves within the MOUs assisted with the prompt identification of abnormalities, the effective management thereof and swift referral of women should complications arise, thus preventing negative incidences from

occurring. Similarly, M'Rithaa *et al*. (2017:2) state that the management of women during birth is dependent on effective information communication among midwives; therefore, effective information communication among midwives is critical to the identification of adverse events and prompt management interventions to prevent maternal mortality and morbidity (M'Rithaa *et al*., 2017:3).

The midwives all mentioned that communication between them and other health care providers at transfer facilities assisted them with decision making regarding a woman's management and care. According to Schwartz *et al.* (2010:1), information communication within and among health care settings is essential to success in the work setting. The study by Schwartz concluded that informational continuity was needed to allow midwives to make important health care decisions to promote the health and wellbeing of both the pregnant woman and her unborn baby.

Additionally, most of the midwives in this study agreed that communication among themselves in the MOUs and with other health care providers at transfer facilities was very important as this promoted the provision of safe maternity care to the women in the MOUs. The findings of a study done in MOUs in the Western Cape indicated that uninterrupted information communication and collaboration among midwives were needed in maternity units to ensure safe maternity care and positive birth outcome for women (M'Rithaa *et al*., 2017:2).

The health information behaviour in the present study was the collective memory approach among the midwives in the MOUs and with other health care providers at transfer facilities, which according to the midwives in this study motivated them to share information regarding the women among themselves in the MOUs and with other health care providers at transfer facilities. The sharing of information ensured that all midwives had the same information regarding the women, thus ensuring the collective memory approach among the midwives and other health care providers at transfer facilities. For the midwives in this study, the sharing of information among themselves in the MOUs and with other health care providers at transfer facilities had various benefits, including the continuation of care for the pregnant woman, care coordination between the midwives and other health care professionals, prevention of negative incidents and informed decisions regarding a woman's care, allowing for the provision of care specific to the woman's needs and the provision of safe maternity care within the MOUs.

5.2.2.2 The methods of communication among midwives and other health care providers during birth

According to the midwives in this study, they communicated continuously with their fellow midwives during and between shifts and with other health care providers at transfer facilities. The midwives mentioned that they used various methods of communication, which included written communication in the form of documentation, which they referred to as the documentation done in writing in the MCR. The midwives all stated that they used the partogram to document the progress of labour and the ISBAR tool to document a complete summary of a woman's management and condition during handovers and at transfers to a next-level facility.

All the midwives revealed that they worked with other midwives in the MOUs and with other health care providers at transfer facilities to provide quality maternity care to pregnant women. Effective communication was achieved through verbal communication in the form of handover rounds that occurred face to face with all midwives present. All the midwives described how they communicated with each other in the MOUs at the start of their shifts at 06:45 and at the end of their shifts at 19:00 during handover rounds. One midwife said that they went from bed to bed to discuss the women's management, the progress of labour and the management plans for the women. Some of the midwives further elaborated and said that the handover rounds ensured that they all had the same information concerning the women's treatment and care to ensure care continuity for the women and care coordination among the midwives and other health care providers. Similarly, in a study done in the Western Cape Province of South Africa, it was found that handovers played a critical role in the management of women during the intrapartum period. The handover process was the entry point for the exchange of information among the midwives that assisted midwives to gain insight into the women in the MOUs (M'Rithaa *et al*., 2015:4).

The midwives in this study mentioned that they were telephonically linked to the referral facilities. All the midwives made telephonic contact with the obstetricians at the referral facilities during transfer of the women or if they required guidance on how to manage the women if complications arose in the MOUs. One midwife elaborated and stated that they would telephonically discuss the women by giving all the relevant information needed at the transfer facilities to follow up on the women's care. The findings are supported by M'Rithaa *et al*. (2015: 4-5) who also found that midwives in the MOUs relied on phone calls for consultation if they were unsure of how to proceed and if women needed to be referred as there were no doctors in the MOUs.

The midwives also revealed that they communicated during staff meetings where they would provide feedback to each other if they had gone for training or workshops. They would also discuss the management of the women if complications arose to plan for the referral of the women. Coordination of care for pregnant women within and among health care settings could be facilitated by effective communication among midwives within the MOUs and with other health care providers. The WHO (2018a:20) recommends for all health care providers to work as a team and effectively communicate among each other as this will ensure care coordination and care continuity for pregnant women within and among health care settings. According to this study, care coordination and continuity of care for pregnant women were achieved through effective communication among midwives in the MOUs and with other health care providers.

5.2.2.3 The challenges with communication among the midwives

The midwives in this study encountered multiple challenges in communication with other midwives in the MOUs. The midwives in the MOUs mainly made use of paper-based documentation.

The midwives mentioned the incomplete documentation in the MCR and said that this made it difficult for them to follow up on a woman's care. One midwife said that midwives sometimes forgot to record interventions performed with women during the intrapartum period, which often resulted in duplication of interventions and unnecessary discomfort for the women. This finding is supported in a study done in two maternity hospitals in Germany by Lippke, Wienert, Keller, Derksen, Welp, Kötting, Hofreuter-Gätgens, Müller, Louwen, Weigand and Ernst (2019:1) during which it was noted that ineffective communication due to incomplete record keeping was a major contributing factor in duplication of interventions and adverse events in maternity care. Similarly, a descriptive cross-sectional study was done in South Africa to determine the existing data and to provide a report on the performance of PHC facilities (Bresick *et al*., 2019:111). The study revealed that ineffective informational continuity led to fragmentation in care and a lack of care coordination for pregnant women (Bresick *et al*., 2019:114).

Another challenge in communication among the midwives in the MOUs was inaccessible records. Most of the midwives complained that the MOUs often became very busy and that during this time, MCRs often were misplaced or mixed up among women's files. The midwives would make use of a separate page to document interventions and findings and put this aside to document at a later stage. This often resulted in record keeping not being done, leading to misinformation. M'Rithaa *et al*. (2015:5) also found that incomplete documentation and documentation not done at all resulted in ineffective communication that could be time consuming and could result in serious adverse events. This also resulted in challenges when women were transferred from MOUs to referral hospitals.

Clinical handover is an important method of communication as discussed by the midwives in this study. Some of the midwives however revealed that incomplete handover of information was a challenge in communication in the MOUs. According to some of the midwives, midwives sometimes forgot to share important information pertaining to the care of the women during handover rounds and this resulted in fragmentation of care and influenced continuity of care for the women. Handover rounds present a major patient safety challenge in maternity hospitals as noted in a study done in Gambia's public maternity hospital units. The findings of this study revealed numerous negative aspects of shift-to-shift handover rounds, including scanty clinical content being communicated, that needed attention in order to reduce errors in care and to improve continuity of care (Rickard *et al*., 2022:9).

The researcher in this study explored the experiences of the midwives regarding the collective memory approach to determine how information was obtained and shared within and among health care facilities. The midwives all agreed that they continuously shared information within and among health care settings. They mentioned that communication and collaboration within and among health care settings improved management and ensured safe maternity care to women during birth. The findings of this study correspond with the IMB model. The health behaviour information refers to the collective memory approach (Fisher *et al*., 2003:37-38). The midwives in this study shared the same information among themselves in the MOUs and with other health care providers at referral facilities and ensured that all of them had the same information about the women. This motivated the midwives to effectively communicate with fellow midwives and other health care providers and assisted them to make informed decisions regarding the women's treatment and care during birth, which resulted in effective care coordination and continuity of care for the women during birth.

5.2.3 Objective three: To explore the experiences of midwives with the shared synchronised care records approach for effective care coordination during birth

5.2.3.1 Documents used during birth

The synchronised care records used by the midwives in the MOUs included the partogram, a tool of communication that the midwives used to record information pertaining to the progress of labour and the management of the women during birth. The ISBAR tool was used within and among facilities to provide a detailed summary of the women's condition and reason for transfer and admission. The documents are all part of the MCR. The Guidelines for Maternity Care in South Africa (National Department of Health, 2015) recommend the use of a

standardised MCR by all facilities at all levels of care in order to improve the quality of maternity care provided to pregnant women (Sibiya *et al.*, 2015:53).

In the present study, the midwives stated that they were familiar with the use of the MCR. One of the midwives said that they used the MCR to seek information regarding the care of pregnant women and to document the care provided to women during birth. Another midwife also stated that the MCR assisted them with communication through documentation of information among themselves as midwives and improved the quality of care of pregnant women. This finding was supported by Sibiya *et al*. (2015:53) who noted that the use of the standardised MCR improved the quality of care and care continuity of women during pregnancy, labour and the postpartum period.

Some of the midwives also mentioned the importance of documentation on the partogram, which allowed for the continuity of care for pregnant women. One of the midwives further said that the partogram served as a means of communication among the midwives in the MOUs and with other health care providers at transfer facilities. The midwives also discussed how they used the ISBAR tool to document information regarding the women to facilitate continuity of care for the women during transfers. One midwife stated that this document was a holistic tool that was completed by them in duplicate and that accompanied the women to the transfer facility. Furthermore, some of the midwives said that the shared synchronised care records allowed for standardised care among health care facilities. The care records ensured care coordination among the health care providers and improved coordination of care within the MOUs and transfer facilities.

5.2.3.2 Information documented during birth

During the interviews the midwives discussed the information that is recorded during birth. The midwives mentioned how they document all information regarding the maternal and foetal wellbeing. This included all findings based on the assessments, interventions and tests performed during birth. According to the midwives in this study the information documented during birth assisted them with reporting of information among them as midwives to ensure all midwives have the same information regarding the women in their care. This finding is supported in a study done in Indonesia where the midwifery information documented during birth was found to as proof of recording and reporting possessed by midwives during record keeping of midwifery care provided (Nasrudin, 2019:1)

The findings of this study applied to the theoretical framework of the study. The midwives had the necessary health behaviour information, namely knowledge of the use of synchronised care records. With this knowledge, the midwives were motivated to maintain the necessary

skills for effective documentation, which included continuous, accurate and complete documentation to enhance effective communication during birth for effective care coordination and continuity of women's care among themselves as midwives and other health care providers at transfer facilities.

5.2.4 Objective four: To explore the experiences of midwives with standardised clinical guidelines for effective care coordination during birth

In the present study, the midwives said that they used the standardised clinical guidelines in the MOUs to guide the care provided by them to women during birth. One midwife said that they used the Guidelines for Maternity Care in South Africa (National Department of Health, 2015) in the MOUs when they needed guidance on the management of women during birth and when obstetric emergencies arose during birth. Similarly, Daemers *et al*. (2017:5) found that midwives updated their basic competencies and knowledge by reading the guidelines available to them. The midwives agreed that these guidelines were important to them since they improved their knowledge and shaped their clinical decision making. This objective will be discussed under two subthemes, namely the dissemination and implementation of clinical guidelines in the MOUs and the importance of clinical guidelines.

5.2.4.1 The dissemination and implementation of clinical guidelines

The midwives in this study revealed that they were kept well up to date with the standardised maternity care guidelines by their operational managers. Some of the midwives stated that the guidelines such as the Updated Guidelines on Intrapartum Care in South Africa presented the basic information on how to manage women in the MOUs during the intrapartum period (District, 2020). The guidelines were readily available if the midwives needed to refer to them. A file with the maternity care guidelines was kept within the MOUs.

After the development of guidelines, the midwives at the MOUs will be informed of any new developments within the guidelines and will be updated through an information session with the operational managers. This finding is similar to the finding in a qualitative cross-sectional descriptive study done in Limpopo Province in South Africa that stipulated that managers should support midwives on the implementation of maternity care guidelines and that this should include training and the availability of copies of the guidelines to the midwives (Ramavhoya *et al*., 2020:3).

The midwives in the current study said that they received very little training on the guidelines before implementation of the guidelines. According to one midwife, the guidelines were only part of a discussion by the operational managers and this was a challenge for the midwives.

The WHO's Framework on Integrated People-Centred Health Services states that collaborative education and training of staff on guidelines at PHC facilities is needed for staff to improve their skills and competence to fulfil their roles (WHO, 2018a:19-20). However, Ramavhoya *et al.* (2020:6) revealed that there was reduced support in the form of monitoring and supervision of the implementation of maternity care guidelines.

5.2.4.2 The importance of clinical guidelines

According to one of the midwives in this study, the standardised clinical guidelines such as the guidelines on intrapartum care are important to them in the MOUs since they provide independent care to pregnant women. The guidelines assist them with the management of obstetric emergencies and guide them on when to transfer women if complications arise. The midwife further said that the guidelines ensured standardised practice of maternity care in the MOUs.

According to the theoretical framework for this study, the health behaviour information is the knowledge of the midwives regarding the use of standardised clinical guidelines. The information in the guidelines motivated the midwives to seek information to guide their care of women during birth. The information obtained from the guidelines motivated the midwives to ensure they had the necessary evidence-based research information to provide quality and safe maternity care to women during birth in the MOUs.

5.3 LIMITATIONS OF THE STUDY

The study was performed only at two MOUs in the Western Cape. The relatively small sample size of the study population affected the transferability of the research findings to other MOU settings. The researcher requested permission to do research at another MOU but was denied permission since the MOU already accommodated multiple other students doing their research at the institution. However, the data from the interviews provided an understanding of the midwives' experiences regarding informational continuity approaches during birth to enable effective care coordination during birth within the MOUs.

The midwives who were interviewed were all working day shift, and the findings of the study can therefore not be generalised to the midwives working night shift. The researcher approached the midwives on the night shift, but they all declined to participate in this study.

Another limitation was that the researcher had to make use of online interviews due to the COVID-19 regulations that limited contact with others to prevent the spread of the virus. This limited the researcher in making observations regarding informational continuity approaches adopted within the MOUs. The researcher did not physically enter the MOUs to observe how

communication and documentation were done. The researcher was only allowed one contact information-gathering session at each MOU. During this session, all COVID-19 protocols were adhered to. This included practising physical distancing, wearing masks and using sanitiser to disinfect hands.

5.4 CONCLUSIONS

The research question for this study was “What are the experiences of midwives regarding informational continuity approaches that enable effective care coordination during birth within PHC settings in the Western Cape??” The research question was answered comprehensively by providing a discussion of the research findings.

There was effective communication between midwives and the women during the intrapartum period in the MOUs. The midwives provided women with prompt communication from the time of admission in the MOUs. The midwives communicated with the women to facilitate the building of trusting relationships. Communication was continuous between the midwives and the women and contributed to building the women’s confidence, involving women in their care, decreased anxiety, facilitated cooperation, and allowed women to make informed decision concerning their care during birth.

Challenges in communication among midwives and women identified included language barriers. This was specifically with women from foreign countries where midwives found it difficult to communicate with these women. Another challenge was that women sometimes forget to bring their maternity case records with to the MOUs and this was time consuming for the midwives since this resulted in duplication of care interventions and fragmented care for the women during the intrapartum period.

Communication among the midwives and other health care providers was important to the midwives in the MOUs since it facilitated care coordination and continuity of care for the women during birth. The communication among the midwives and other health care providers was effective and assisted midwives with decision making, prevented negative incidence and promoted the provision of quality and safe maternal care in the MOUs.

Communication among the midwives and other health care providers mainly occur through written communication in the MCR. The partogram and the ISBAR Tool. Midwives also communicated verbally during handover round, telephonically and during staff meetings.

Challenges with communication among midwives included incomplete documentation, inaccessible records, and inadequate communication during handovers.

The midwives used the intrapartum care guidelines from WHO and the South African guidelines on intrapartum care to guide their care provided to women in the MOUs. The guidelines ensured standardised maternity care withing the MOUs. Midwives, however, need more training when new guidelines become available.

Therefore, informational continuity in the MOUs was achieved through the four informational continuity approaches which include positive patient provider communication, the collective memory approach among midwives, the use of synchronised care records and the use of standardized clinical guidelines. Effective informational continuity within the MOUs, could allowed for care coordination and continuity of care during the intrapartum period.

5.5 RECOMMENDATIONS

The following recommendations are proposed, based on the findings of the study.

Themes	Recommendations
The communication of the midwives with pregnant women	1. The facilities should allow women to bring their own interpreter with to the MOUs.
The communication between the midwives and other health care providers	2. Regular in-service training on effective communication skills and record keeping should be provided for the midwives.
The use of standardised guidelines in the MOUs	3. Managers should ensure that all midwives receive prompt on-site training when new guidelines become available.

Table 5.1: Recommendations

5.5.1 Recommendation one: The facilities should allow the women to bring their own interpreter with to visits at the MOUs

The midwives working in the MOUs provide care to a diversity of women. The midwives found it difficult to communicate with women coming from Somalia since these women did not know English, Afrikaans and isiXhosa. Therefore, the midwives recommended that the facilities should implement a system whereby women from foreign countries will be allowed to bring along a partner who can act as an interpreter for the women during communication to facilitate effective communication with the women.

Various other studies have shown that patient satisfaction is improved when patients have interpreters present who speak their language and that this has a positive impact on the care provided.

5.5.2 Recommendation two: Regular in-service training on communication skills and record keeping for midwives

Midwives in the MOUs should receive regular in-service training on documentation and effective communication skills to improve and update their knowledge. The managers can compile a monthly roster and a programme with various topics on record keeping and effective communication skills in the workplace to assist the midwives to improve their skills and knowledge.

5.5.3 Recommendation three: Regular training for midwives on new guidelines

Midwives are to receive regular training when new or updated guidelines become available. The managers should then allow the midwives to share this information with the rest of the midwives on a regular basis to ensure that the midwives are up to date with standardised clinical guidelines.

5.5.4. Future research

The following areas of future research are proposed:

- Qualitative study on women's experiences regarding informational continuity during birth in all the MOUs in the Western Cape.
- Exploration of the informational continuity approaches of midwives during the antenatal, intrapartum and postnatal periods in all MOUs in the Western Cape.

5.6 DISSEMINATION

The researcher will provide selected MOUs with a copy of the research findings and recommendations. This will allow the operational managers and the facility managers the opportunity to ascertain the feasibility of the recommendations.

The thesis will be made available electronically on the Stellenbosch University website via SUN Scholar. The researcher will write and publish an article in an accredited peer-reviewed journal for scholarly purposes. The researcher aims to present the study on various platforms, such as Department of Health Research Day, Stellenbosch University Research Day and congresses.

5.7 CONCLUSION

In this chapter, the study findings were discussed in relation to the study objectives as well as the themes and subthemes that emerged. The research question was answered by the study findings. Informational continuity during birth was found to be imperative for the prevention of

maternal mortality and morbidity during birth. The aim of the study was to explore the experiences of midwives regarding informational continuity approaches that enabled effective care coordination during birth within PHC settings in the Western Cape. Effective communication during birth was found to contribute to a positive birth outcome by preventing adverse events during birth and facilitating the provision of safe maternity care. In this study, the researcher only applied the health behaviour information construct of the IMB model. According to the IMB model, health behaviour information is defined as the initial requirement for specific health-related behaviour. In this study, the health behaviour information is all the information concerning the pregnant women and their condition during the intrapartum period. Health behaviour information was possible due to the informational continuity approaches. The study found that effective communication occurred through informational continuity approaches, namely positive patient-provider relationships, collective memory among midwives, the use of synchronised care records and the use of common clinical guidelines in the MOUs, ultimately this could have a positive influence on care coordination and continuity of care in the MOUs.

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Appendix 1: Ethical approval from Stellenbosch University

UNIVERSITEIT STELLENBOSCH UNIVERSITY

Approval Notice

New Application

05/10/2020

Project ID :17318

HREC Reference No: S20/08/192

Project Title: Informational continuity approaches during birth within the primary health care settings in the Western Cape: Experiences of skilled birth attendants.

Dear Mrs Victoria Anthony

The **New Application** received on 30/09/2020 was reviewed and **approved** by members of **Health Research Ethics Committee** via **expedited** review procedures on 05/10/2020

Please note the following information about your approved research protocol:

Protocol Approval Date: 05 October 2020

Protocol Expiry Date: 04 October 2021

Please remember to use your Project ID 17318 and Ethics Reference Number S20/08/192 on any documents or correspondence with the HREC concerning your research protocol.

Please note that the HREC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review

Translation of the informed consent document(s) to the language(s) applicable to your study participants should now be submitted to the HREC.

Please note you can submit your progress report through the online ethics application process, available at: Links Application Form Direct Link and the application should be submitted to the HREC before the year has expired. Please see *Forms and Instructions* on our HREC website (www.sun.ac.za/healthresearchethics) for guidance on how to submit a progress report.

The HREC will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility, permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Please consult the Western Cape Government website for access to the online Health Research Approval Process, see: https://www.westerncape.gov.za/general-publication/health-research-approval-process. Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

We wish you the best as you conduct your research.

For standard HREC forms and instructions, please visit: Forms and Instructions on our HREC website https://applyethics.sun.ac.za/ProjectView/Index/17318

If you have any questions or need further assistance, please contact the HREC office at 021 938 9677.

Yours sincerely,

Mrs. Melody Shana

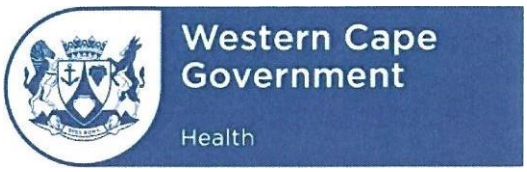
Coordinator

HREC1

National Health Research Ethics Council (NHREC) Registration Number:

Page 1 of 2

Appendix 2: Permission obtained from Department of Health



STRATEGY & HEALTH SUPPORT
Health.Research@westerncape.gov.za tel: +27 21 483 0866: fax: +27 21 483 6058 5th Floor, Norton Rose House„ 8 Riebeek Street, Cape Town, 8001 www.capegateway.gov.za)

REFERENCE: WC 202101
002 ENQUIRIES: Dr Sabela Petros

Francie van Zijl Drive
Tygerberg
7505
Cape Town
South Africa

For attention: Mrs Victoria Anthony, Prof Doreen Kaura

Re: Informational continuity approaches during birth within the primary health care settings in the Western Cape: Experiences of skilled birth attendants.

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.
Please contact the following people to assist you with any further enquiries in accessing the following sites:

Bishop Lavis CDC	Dr Mumtaz Abbas	021 927 1 147

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (annexure 9) within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
3. In the event where the research project goes beyond the estimated completion date which was submitted, researchers are expected to complete and submit a progress report (Annexure 8) to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
4. The reference number above should be quoted in all future correspondence.

Yours sincerely

DR M
MOODLEY
DIRECTOR: HEALTH IMPACT ASSESSMENT
DATE:

Dr Melvin Moodley
Director: Health Impact Assessment

0 4 MAY 2021

CC

Appendix 3: Institutional permission obtained from Department of Health

STRATEGY & HEALTH SUPPORT
Health.Research@westerncape.gov.za tel: +27 21 483 0866: fax: +27 21 483 6058 5th Floor, Norton Rose House„ 8 Riebeek Street, Cape Town, 8001 www.capegateway.gov.za)

REFERENCE: WC 202101 002
ENQUIRIES: Dr Sabela Petros

Francie van Zijl Drive
Tygerberg
7505
Cape Town
South Africa

For attention: Mrs Victoria Anthony, Prof Doreen Kaura

Re: Informational continuity approaches during birth within the primary health care settings in the Western Cape: Experiences of skilled birth attendants.

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.
Please contact the following people to assist you with any further enquiries in accessing the following sites:

Elsies River CHC	Lorraine Beukes	021 931 0213

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (annexure 9) within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
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4. The reference number above should be quoted in all future correspondence.

Yours sincerely

DR M MOODLEY

DIRECTOR: IMPACT ASSESSMENT DATE:

HEALTH

Dr Melvin Moodley
Director: Health Impact Assessment

I I MAY 2021

CC

Appendix 4: Participant information leaflet and declaration of consent by participant and investigator

TITLE OF THE RESEARCH PROJECT: Informational continuity approaches during birth within the primary health care settings in the Western Cape: Experiences of skilled birth attendants.

REFERENCE NUMBER: 17318
PRINCIPAL INVESTIGATOR: Victoria Anthony
ADDRESS: University Stellenbosch
Faculty of Medicine & Health Science
Department of Nursing and Midwifery
PO Box 241
Cape Town
8000
South Africa
CONTACT NUMBER: 0630026363

Dear Colleague

My name is Victoria Anthony, and I am a master's in nursing student at the University of Stellenbosch. I would like to invite you to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the study staff or doctor any questions about any part of this project that you do not fully understand. It is very important that you are completely satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary,** and you are free to decline to participate. In other words, you may choose to take part, or you may choose not to take part. Nothing bad will come of it if you say no: it will not affect you negatively in any way whatsoever. Refusal to participate will involve no penalty or loss of benefits or reduction in the level of care to which you are otherwise entitled. You are also free to withdraw from the study at any point, even if you do agree to take part initially.

The Health Research Ethics Committee at Stellenbosch University has approved this study**.** The study will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, the South African Guidelines for Good Clinical Practice (2006), the Medical Research Council (MRC) Ethical Guidelines for Research (2002), and the Department of Health Ethics in Health Research: Principles, Processes and Studies (2015).

The aim of the proposed study is to explore how skilled birth attendants within the primary health care setting communicate, share and transfer information between each other, the pregnant women and members of the multidisciplinary team within the primary health care settings or referral institutions. The maternity obstetric units are part of the primary health care setting and therefore the preferred setting for the proposed study.

The objectives of the study are to explore how skilled birth attendants communicate with the pregnant women during labour and delivery and how this influence patient care and satisfaction. The researcher also wishes to determine how skilled birth attendants transfer patient information between one another within the MOU setting as well as with higher levels of care facilities when pregnant women are referred. The researcher also aims to determine how the skilled birth attendants understand and implement maternity care guidelines and how records such as the maternity case records are used for communication and transfer of patient information.

The researcher intends to obtain telephonic inform consent of participants to participate in the research study. Upon informed consent the researcher intends to collect data through online interviews with participants to obtain information. The researcher will manage all private information shared by the participants and keep it confidential. The information obtained during the interview will not be shared with anyone. Only the researcher and study supervisor will have access to the research data. The interview recordings and transcripts will be stored on an external hard drive in a password protected file. The researcher will make use of codes for all participants and data collected will not reflect any personal information of the participants. The participants' confidentiality will be protected by assigning a code to each participant. The researcher will make sure that all transcripts and interview recording is coded per participant. The researcher will make sure that the facility names will not be revealed throughout the research study.

The proposed study will not impose more than minimal risk as the participants will only be participating in online interviews. The researcher will also provide each participant with a data bundle to be used for the online interview via Skype.

If you are willing to participate in this study, please sign the consent

Yours sincerely
Victoria Anthony
Principal Investigator

Declaration by participant

By signing below, I ……. agree to take part in a research study entitled Informational continuity approaches during birth within the primary health care settings in the Western Cape: Experiences of skilled birth attendants.

I declare that:

- I have read the attached information leaflet and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to

Signed at (*place*) ..... On (*date*) ……..……. 2020.

.....

Signature of participant

Appendix 5: Interview guide for skilled birth attendants

Section A

The researcher is an Advanced Midwife currently working in a maternity unit in the Western Cape. The researcher intends to explore the experiences of skilled birth attendants in the midwifery obstetric units regarding informational continuity and how this influences care coordination and continuity of care during labour and delivery. The researcher aims to interview the skilled birth attendants at the respective maternity units to explore the lived experiences of the skilled birth attendants.

Demographic Information

- Tell me about yourself.
- Years' experience as a midwife
- Age
- Where have you worked before?

RO 1: To explore the skilled birth attendants (SBA) experiences with positive patient-provider communication approach for effective care coordination during birth

Interview Question: What is your experience on communication between you and the patients/clients?

Probes:

- When do you communicate with the clients during birth?
- How do you communicate with the clients during birth?
- Why do you communicate with the clients during birth? (Motivation)
- What information do you communicate with the clients during birth?

RO 2: To determine the midwives experiences with "collective memory" approach that enables effective care coordination during birth

Interview Question: What is your experience with sharing information between care providers in the facility?

Probes:

- Who do you share information with?
- What information do you share/communicate?
- How is the information shared/communicated within and between facilities?
- When is the information shared/communicated?
- Why do you share the information? (motivation)

RO3: To explore the midwives experience with shared, synchronized care records approach for effective care coordination during birth

Interview Question: What is your experience with the use of shared care records during treatment and care of women in labour?

Probes:

- Why do you share the records during birth? (motivation)
- Which records do you use to synchronize care during birth?
- What information do you share in these records?
- Who do you share the records with?
- How do you share the information within and between facilities?

RO 4: To determine the experiences of midwives with standardized, common clinical protocols for effective care coordination during birth

Interview Question: What is your experience with common clinical protocols used in the MOU which guides midwifery treatment and care?

Probes

- Which clinical protocols are commonly used during birth?
- What information is standardized in these protocols?
- Who uses these protocols?
- How do you use these protocols within and between facilities?
- Why do you use standardized protocols (motivation)?

Thank you for the information and your time. Anything else you would like to add?

Appendix 6: Extract of transcribed interview

Participant 1 Speaker key: R-Interviewer **Participant-001**

R So, you said that communication between you and the women during birth is very important explain to me why this is so important.

001 Firstly communication contributes to building trusting relationships between me and the women during birth, if there is trust the women will trust me as the midwife to make decisions concerning her management during birth.

R So you are saying that communication with the women contributed to development of this trust relationships.

001 Oh yes, if you do not communicate with the women, they become hesitant and often do not cooperate during birth

R Okay, so when did communication take place between you as the SBA and the women in the MOUs?

001 I communicate with the women from the time that they enter the labour ward to obtain information regarding the women's history.

R You stated that you communicated with the women on initial contact, did this in any way influence your relationship with the women?

001 Absolutely, the women become more confident. You can see this in their actions, they communicate their concerns freely.

001 Also the way you talk to the women had an influence on how they participated in their care.

R Ok, so you are telling me that the behaviour of the midwife also influences how the women will participate in their care. Can you explain a little more on this?

001 OK, so when you as the midwife are calm and treat the women with respect and empathy, you make them calm. So, I will explain all procedures to the women. When I do a vaginal examination to make them feel less anxious. The women also become more cooperative when they are calm and will freely participate in their care.

R So you explain all procedures to the women during birth?

001 Yes this is so important. The women need to fully understand what is happening with her. The women will become involved in her care.

Appendix 7: Declaration by language editor

2022/11/25
Declaration

To whom it may concern:
I hereby declare that I have edited the master's thesis of Victoria Anthony according to the guidelines set by the Stellenbosch University Language Centre. The in-text citations and reference list were corrected according to the Harvard referencing style.
AML du Preez (Ms)