



University of Venda

**TRAINING PROGRAMME FOR ELDERLY WOMEN TO IMPROVE THE
REDUCTION OF MATERNAL MORTALITY IN LIMPOPO PROVINCE, SOUTH
AFRICA**

by

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DECLARATION

I declare that the thesis entitled “**TRAINING PROGRAMME FOR ELDERLY WOMEN TO IMPROVE THE REDUCTION OF MATERNAL MORTALITY IN LIMPOPO PROVINCE, SOUTH AFRICA**” is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete reference and that this work has not been submitted before for any other degree at any other institution.

Signature



Date 28/02/2023

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DEDICATION

This thesis is dedicated to:

- All the mothers who lost their lives due to maternal and childbirth-related issues.
- My dearest mom, Mrs Pandelani Susan Ramovha, toiled away in patience and understanding, putting me first in her everyday prayer life while I endeavoured to accomplish this thesis. Mommy, you always wished I would be a doctor – it finally paid off.
- My late father, Mr M Asaph Ramovha, who did not live to witness this achievement.
- My children, Hulisani, Thakhani, Thabelo, Tshilidzi, and Tshifhiwa Israel.
- My brothers, Phestos and Shadrack, and my only sister, Caroline Ramovha.

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ABSTRACT

Introduction: Midwives observe childbirth as a normal physiological process which is, however, associated with risks that may lead to loss of life. Pregnancy and childbirth are socially constructed events that bring joyous moments in the lives of parents because new life has been brought into the family. Unfortunately, maternal mortality is unacceptably high worldwide, especially in developing countries where South Africa is no exception. Approximately 810 women die daily from preventable causes related to pregnancy and childbirth. Improving maternal health was the fifth of eight Millennium Development Goals to reduce the maternal mortality ratio by 2015. Much has changed regarding the care that was previously provided during pregnancy and childbirth by elderly women. Elderly women were regarded as expert advisers to pregnant women during pregnancy and childbirth. It is in this light that the researcher explored whether their roles are outdated in improving the reduction of maternal mortality.

Purpose: The study intended to develop a training programme for elderly women to improve the reduction of maternal mortality.

Methods: The study adopted a qualitative approach using descriptive, exploratory, and contextual design. The population included elderly women, pregnant women, breastfeeding mothers, and midwives, who were purposively sampled. Non-probability purposive sampling was used to select the districts, clinics, and elderly women, while convenient sampling was used to select pregnant women, breastfeeding mothers, and midwives. The study was guided by the System Ecological Model (SEM) of human behaviour (Baral, Logie, Grosso, Wirtz & Bevrer, 2013). Data were collected using an unstructured interview with the participants, in-depth individual interviews, and a focus group discussion for elderly women. Data were coded and analysed using the thematic analysis approach described by Tesch. Finally, key themes were extracted and analysed from the collected data. Training programme was done on the basis of six elements of Dickoff et al., (1968), Kolb's theory of learning guided the development. Chinn and Kramer (2019) guided the validation of training programme.

Findings: The findings revealed that elderly women are no longer given an opportunity to care for their daughters-in-law during pregnancy and childbirth, and that elderly women lack current knowledge on adequate care and support for pregnant women and childbirth. Furthermore, midwives reported barriers that delay pregnant women from seeking early medical intervention in order to receive prompt, adequate and quality care to avoid common problems encountered in a maternal health facility. The findings from pregnant women and breastfeeding mothers indicated that elderly women lack knowledge of their role regarding the early utilisation of healthcare services and the need for elderly women to be trained on their roles regarding maternal healthcare practices. The study concluded by revealing the usefulness of elderly women as advisers and caregivers during pregnancy and childbirth. Elderly women showed care, compassion, and suggested pregnant women eat small amounts of food to avoid large neonates. Their influences regarding the utilisation of healthcare services using their indigenous knowledge was also found useful. The findings of the study informed the development of a training programme for elderly women to improve the reduction of maternal mortality to advance health outcomes in women and newborns within the maternal healthcare facilities in South Africa and the world at large.

Recommendations: The study recommends that the training of elderly women should be implemented by skilled healthcare workers. In addition, a longitudinal study should be conducted to assess the effectiveness of the programme.

Keywords: elderly women, maternal mortality, pregnant women, training programme

LIST OF ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
BANC	Basic Antenatal Care
BFM	Breastfeeding Mothers
CAQDAS	Computer-assisted qualitative data analysis software
CDs	Compact Discs
CHW	Community Health Worker
Covid-19	Coronavirus disease 2019
DHIS	District Health Information System
HIV	Human Immunodeficiency Virus
ICF	International Classification of Functioning
IHMF	Ideal Hospital and Maintenance Framework
iMMR	institutional Maternal Mortality Ratio
MDGs	Millennium Development Goals
PW	Pregnant Women
SA	South Africa
SDG	Sustainable Development Goal
SAMPNHP	South African Maternal, Perinatal and Neonatal Health Policy
SANC	South African Nursing Council
SANCO	South African National Civic Organisation
SAQA	South African Qualifications Authority
SEM	Social Ecological Model
THPs	Traditional Health Practitioners
UN	United Nations

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CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

The mother's survival during pregnancy and childbirth is considered essential; however, the community and family mostly celebrate the baby's birth. This has repercussions because pregnancy and childbirth is one of the major causes of death among pregnant women (PW). Worldwide, women are expected to bear children and honoured a job well-done role as a mother, yet, pregnancy and childbirth are perilous journeys in most developing countries (Ransom & Yinger, 2017).

The state of maternal health is one of the key indicators of a society's level of development, as well as an indicator of the performance of the healthcare delivery system. Consequently, reduction in maternal mortality is a significant agenda of many global initiatives, such as the Sustainable Development Goal (SDG) No 3, to ensure healthy lives and promote well-being for all, which encompasses ending maternal mortality and preventable newborn and child deaths (Macdonald & Magill-Cuerden, 2017). However, the continuing high maternal mortality ratios in South Africa remain a concern. The World Health Organization (WHO) (2016) and United Nations (UN) estimated statistics on maternal mortality is 1, 000 per 100, 000 live births in SA; whereas in Limpopo province maternal death recorded from the year 2011 to 2015 was at 232 (Saving mothers report, 2016) therefore, women are dying every day from pregnancy-related complications.

Researchers on maternal mortality argued that maternal mortality could be preventable if every woman received care from healthcare facilities during pregnancy, labour, and the postnatal period (Masele, 2018; Yarney, 2019 & Amoo and Ajayi, 2019). However, the cause of maternal deaths is usually associated with traditional beliefs and socio-economic factors, which may affect the lifestyle of women, healthcare utilisation

behaviours, and health status. Furthermore, cultural practices such as lack of power in decision-making limit access to the utilisation of skilled birth attendants in healthcare facilities. Instead, they utilise services rendered by unskilled personnel or advice offered by an older woman at home (Ganle, Obeng, Segbefia, Mwinyuri, Yeboah & Baatiema, 2015).

From a human rights perspective and respect for traditional beliefs and cultural practices, every woman has a right to choose services that are available, accessible and culturally inherent, as it is challenging to change beliefs and practices that people adhered to throughout their entire lives. This is confirmed by a study conducted by Nesane, Maputle and Shilubane (2016) in Limpopo, which recommends that effective health interventions should consider traditional beliefs and customs in order to achieve health goals.

Given the complexity of the causes of maternal mortality, it appears that the community, an important resource, is frequently overlooked in providing solutions to this challenge. Elderly women have an important role to play in the lives of childbearing women; they become the primary caregivers in their homes until the end of the postnatal period, for example, as soon as a woman is reported to have missed her periods until the end of the postnatal period. This is supported by Gülmezoglu, Lawrie, Hezelgrave, Oladapo, Souza, Gielen, Lawn, Rajiv Bahl, Althabe, Colaci and Hofmeyr (2016), who argue that maternal mortality can be effectively addressed through intervention strategies that cut across a range of maternal healthcare from preconception to postnatal period and integrating various stakeholders in the health system, such as family and community level, outreach, clinical care, and facility level. Elderly women are vital members of a family and the community. Elderly women provide care and support to PW, influencing the child's and mother's survival (Siruma, Hornby & Srinivas, 2014). Elderly women also make key decisions that affect young PW regarding whether to initiate antenatal care (ANC) (Chimatiro, Hajison, Chipeta & Adamson, 2018). In addition, some studies show that elderly women can act as birth attendants using their experiences instead of training (Siruma, Hornby & Srinivas,

2014). Regardless of the important roles played by these elderly women, there is little known about how they contribute to maternal health. To the best knowledge of the researcher, no trace of studies conducted in Limpopo address the roles of elderly women in participation in maternal health practices. Therefore, this study seeks to develop a training programme for elderly women to improve the reduction of maternal mortality. To achieve this endeavour, the study explores the roles of elderly women in maternal health practices in rural villages of Limpopo Province.

1.2 BACKGROUND OF THE STUDY

Maternal mortality refers to the death of a woman while pregnant or within 42 days following the termination of pregnancy, irrespective of the duration and the site of pregnancy. This can be from any cause related to or aggravated by the pregnancy or its management (Macdonald & Magill-Cuerden, 2017; WHO, 2016). Every pregnancy faces risk, and prenatal screening cannot detect which pregnancy will develop complications (Rahman, Ngadan & Arif, 2016; Rahman, Perkins, Mazumder, Haider, Siddique, Capello, Santarelli & Arifeen, 2019). It is paramount for PW to utilise healthcare services as soon as they realise that they have missed their period and continue until delivery and the postnatal period. Pregnancy and delivery seem to be given more attention and turn to ignore the postnatal care period, where women experience challenges related to birth problems and complications. The needs of the mothers tend to be ignored while the focus is on the baby's needs. This period is regarded as the most crucial stage in the mother's life because most maternal deaths occur at this stage (Lambermon., Vandenbussche., Dedding. and van Duijnhoven, 2020).

Worldwide, approximately 300 000 women die each year due to complications related to pregnancy and childbirth. The majority of maternal deaths are said to be possibly avoidable and preventable and primarily occur in low- and middle-income countries (Nyfløt & Sitra, 2018). During the UN General Assembly in New York in 2015, the Global Strategy for Women's, Children's and Adolescents' Health 2016-2030 was launched. Following the post-2015 agenda Millennium Development Goal-5 (MDG-5)

for improving maternal health, South Africa is looking forward to Sustainable Development Goal (SDG) No 3, which aimed at ending all preventable maternal, children and adolescent mortality (WHO, 2016). The main causes of death accounting for 75% of maternal death are preventable diseases, such as haemorrhage, hypertensive disorders, infections, obstructed labour, and unsafe abortions (Macdonald & Magill-Cuerden, 2017). Maternal deaths can be prevented if women receive appropriate care from healthcare facilities during pregnancy, labour and the postnatal period. However, literature shows that women continue to die from pregnancy, irrespective of medication availability in clinics, pharmacies and hospitals. According to Marshall, Raynor and Nolte (2016), the needs of women are essential as an individual, therefore, they should be offered information concerning their own health, including recognising problems and reporting to the healthcare workers.

WHO (2016) reveals several factors that prevent women from seeking healthcare services during pregnancy, labour, and postpartum. They include poverty, distance infrastructure, lack of information, inadequate services, and cultural practices; these barriers should be identified to improve maternal health and good perinatal outcomes through conducting health awareness to elderly women to address certain socio-cultural practices that act as a barrier in seeking early medical attention. Despite the apparent advances in medication and practices, women continue to die almost every day, with most deaths of approximately 830 000 women world wide (WHO, 2016) and 119 per 100 000 live births in 2017 in South Africa (World Bank, 2019) occurring in the postnatal period. Maternal mortality is caused by medical conditions and embedded in cultural beliefs and practices, especially in rural areas (Morgan, Tetui, Muhumuza-Kananura, Ekirapa-Kiracho & George, 2017). Studies in Bangladesh revealed that women are at high risk for maternal morbidity and mortality in the postpartum period, as cultural and religious practices have more influence on maternal health (Walton & Schbley, 2013). In a study conducted in Turkey, Altuntung, Anik and Ege (2018) revealed that most mothers prefer seeking help from traditional practices to address health problems that arise during the postnatal period, as suggested by relatives such as the mother-in-law. For health problems like postpartum bleeding, they prefer to

apply a heat source, for example, putting a hot blister on the belly or heating a tile and putting it on, which is a common practice. In Ethiopia, many traditional beliefs and practices were carried out during the antenatal, delivery and postnatal periods. These practices were said to have negative consequences on the utilisation of maternal health services, delaying women from seeking medical attention and thus aggravating the problem and threats to the life of a pregnant woman (Mesele, 2018).

In a study conducted in Nigeria, Odekunle (2016) states that there should be a well-planned maternal health programme to reduce maternal mortality that focuses on biomedical and non-biomedical causes such as socio-cultural factors (i.e., the root cause of most maternal mortality). In contrast, Ariyo, Ozodiegwu and Doctor (2017) further state that programmes to reduce maternal mortality should be executed; however, there are barriers to health-seeking behaviours strongly influenced by cultural beliefs, attitudes, and low educational attainment.

South Africa is one of the few countries that review maternal deaths at an institutional health facility in a structured notification form (maternal death notification form). Death notification forms, including demographic and clinical data, avoidable factors and lessons learned, are sent to the independent provincial assessors for further assessment. The collected information is detailed in the Saving Mothers Report and published. The published report identifies lessons learnt and ways to prevent further deaths, specifically in healthcare facilities. In addition, the report includes causes of death at the healthcare facilities, at home, and in undisclosed locations. Unknown causes of maternal death cases are also reported in the Saving Mothers Report (2017).

Table 1.1 below shows maternal deaths between 1999-2014 according to causes and the place of death. It was deduced from the results that a considerable number of maternal deaths occur at home and in undisclosed locations. Table 1.2 shows deaths due to complications, whereas some were unknown. It could be concluded from these results that most hospital deaths are caused by complications during pregnancy, which

are reported late when women are in critical conditions. Some PW who visit hospitals never return for further medical check-ups and end up dying from complications either at home or on their way back to the hospital.

Moreover, some women die from unreported pregnancy complications. There are reports that some PW visit traditional healers on the advice of elderly women (Ganle, Obeng, Segbefia, Mwinyuri, Yeboah & Baatiema, 2015; Mogawane, Mothiba & Malema, 2015). Others do not disclose pregnancy until they experience complications, but it is too late for them to be assisted. Instead, they may seek assistance from the traditional healer or perform traditional practices according to their beliefs. Cultural beliefs and practices often lead to self-care and consultation with elders and traditional healers. In most communities, women seek advice on important health matters from older women first before turning to health professionals (Banda, Michelo & Hazemba, 2012).

Table 1.1: Number of deaths during pregnancy, childbirth and puerperium by cause for each setting in South Africa, 1999-2014

Cause group	Facility (%)	Home/Other (%)	Unknown (%)	Total (%)
Non-Pregnancy Infections	7 389 (33.5)	1 198 (21.7)	785 (20.0)	9 372 (29.7)
Medical-Surgical Disorder	4 385(19.9)	1 128(20.4)	609 (15.6)	6 122 (19.5)
Hypertensive Disorder	2 881 (13.1)	525 (9.5)	519 (13.2)	3 925 (12.5)
Direct Unspecified	1 861 (8.4)	419 (7.6)	421 (10.7)	2 701 (8.6)
Obstetric Haemorrhage	1 666 (7.5)	426 (7.7)	368 (9.4)	2 460 (7.8)
Pregnancy-Related Sepsis	1 181 (5.4)	305 (5.5)	160 (4.1)	1 646 (5.2)
Non Obstetric Cause	484 (2.2)	671 (12.2)	445 (11.4)	1 600 (5.1)
Miscarriage	1 005 (4.6)	172 (3.1)	169 (4.3)	1 346 (4.3)
Ectopic	516 (2.3)	222 (4.0)	198 (5.1)	936 (3.0)
Embolism	281 (1.3)	77 (1.4)	54 (1.4)	412 (1.3)
Advance Drug Reaction	101 (0.5)	5 (0.1)	16 (0.4)	122 (0.4)

Newborn Diagnosis	54 (0.2)	10 (0.2)	11 (0.3)	75 (0.2)
Anaesthetic	44 (0.2)	11 (0.2)	10 (0.3)	65 (0.2)
Miscellaneous	25 (0.1)	12 (0.2)	5 (0.1)	42 (0.1)
Late Deaths	1 (0)	2 (0)	3 (0.1)	6 (0)
Missing/Unknown	197 (0.9)	333 (6.0)	145 (3.7)	675 (2.1)
Total	22 071 (100.0)	5 516 (100.0)	3 918 (100.0)	31 505 (100.0)

Source: South African national statistic Saving Mothers Report (2014)

Table 1.2: iMMR per underlying cause in Limpopo Province 2011-13; 2014-16; 2017

iMMR Limpopo Province			
Cause group	2011-13	2014-16	2017
Hypertension	31,23	27,75	24,34
Obstetric Haemorrhage	33,59	33,47	33,57
Ectopic Pregnancy	6,30	4,63	5,87
Miscarriages	8,40	9,25	4,20
Pregnancy-related Sepsis	10,24	10,07	7,55
Adverse drug Reaction	8,92	6,53	4,20
Embolism	2,10	4,90	4,20
Acute Collapse-cause Unknown	2,89	1,90	4,20
Non-Pregnancy-Related Infections	59,84	36,73	37,76
Medical & Surgical disorders	17,32	18,77	15,11
Unknown Cause	9,97	7,35	4,20
iMMR	191,06	165,16	146,02

Source: Limpopo provincial statistic Saving Mothers Report (2017)

WHO (2016) recommends that women should start to book ANC as early as less than 12 weeks of gestation to deliver at a healthcare facility where there are skilled birth attendance and to attend postnatal visits at the healthcare facility on day three post-delivery and again at six weeks to identify health risks and provide adequate management as a measure of improving maternal health. The National Committee for the Confidential Enquiries into Maternal Deaths of South Africa recommends implementing the Saving Mothers recommendations as measures to reduce maternal and perinatal deaths.

Most studies highlight the issue of providing health education to PW, training healthcare providers, involvement of men for support, and developing bundles to guide care (Nyfløt & Sitras, 2018; Rodrigues-Aguilar, 2018, Ragolane, 2017; Mulaudzi, Phiri, Mataboge, Ngunyule & Mogale, 2016; Kilpatrick, 2015). However, Dehury, Pat and Dehury (2018) reveal that there is no trace of government guidelines that address the issue of maternal health and childcare specifically that concerns traditional beliefs and cultural practices.

Nesane, Maputle and Shilubane (2016) suggest that effective health interventions in Limpopo should consider traditional beliefs and customs to achieve health goals. The contribution of elderly women to reproductive health in local villages is important. According to Gemmill and Catalano (2017), elderly women have traditional and experiential knowledge about pregnancy that can be used to mitigate the inherent mortality risks involved in childbearing. This implies that elderly women's knowledge about pregnancy and childbirth can benefit PW (Gemmill & Catalano, 2017). Additionally, elderly women have a lot of time to invest in offspring fertility, including direct care during pregnancy and childbirth (Gemmill & Catalano, 2017; Davis-Floyd & Sargent, 1997). A study by Adatara, Afaya, Baku, Salia and Asempah (2018) found that elderly women have a long history of aiding in maternal health in many rural communities in developing countries, although they are unskilled birth attendants.

Adatara, Afaya, Baku, Salia and Asempah (2018) state that Ghanaian women traditionally preferred to deliver at home because it is cheaper and easier as women who deliver at home receive social support from elderly women and extended families and do not have to pay much for the delivery services. This influence of elderly women on maternal health indicates calls for incorporating influential community elderly women in maternal health strategies to reduce maternal rates in rural communities. There is no trace of a study conducted in Limpopo which addresses the roles of elderly women in participation in maternal health practices. As such, research is needed to understand the roles of elderly women in maternal health practices, particularly their involvement in health decisions, the kind of support offered to PW, and their influence on PW regarding the utilisation of healthcare services. Therefore, this study seeks to develop a training programme for elderly women to improve the reduction of maternal mortality in Limpopo Province, South Africa.

1.3 PROBLEM STATEMENT

The prevalence of maternal mortality rates in South Africa remains a major area of concern, as many women die during pregnancy and childbirth. The researcher is a midwife, attends maternal mortality review meetings at Tshilidzini hospital and district level in Vhembe district of Limpopo province, where it was conferred that the high maternal mortality rate remains a challenge in Limpopo Province. Most of these deaths are classified under patient-related factors due to delays in seeking medical attention. According to Vhembe district hospital information system (DHIS) 2016, maternal deaths which were reported from seven facilities that render maternity services was 18 death in the year 2016-17, 23 death in the year 2017-2018 and 25 in the year 2018-2019.

This was supported by Ariyo, Ozodiegwu and Doctor (2017), who state that there are barriers to health-seeking behaviours strongly influenced by attitude and cultural beliefs. The researcher observed that elderly women influence decision-making and are more involved in the health of PW. The influence and involvement of elderly

women in the health of PW are based on the inherent cultural and traditional norms. For example, a pregnant woman will be given herbs to drink to preserve and protect the unborn child from the fear of being bewitched. This was supported by Kortman (2020), who established that PW do not decide on their pregnancies, and elderly women in the family have more influence in decision-making for PW on when to seek medical attention. Cultural practices contribute to the delay in seeking medical attention in the healthcare facility, which may delay the identification of challenges and appropriate management.

Nyfløt and Sitras (2018) developed a strategy to reduce global maternal mortality. In agreement, a study in India developed a model to reduce maternal mortality (Dutta, 2018). In South Africa, the National Department of Health (NDoH) conducted intensive outreach to train healthcare professionals in managing obstetric emergencies. This was done through practical training in the Essential Steps of Managing Obstetric Emergencies (ESMOE) and ensuring the continuity of obstetric emergency drills (Moodley & Pattinson, 2018). In addition, the NDoH developed a guideline for maternal health for the guidance of healthcare workers providing obstetric, surgical and anaesthetic services for PW in district clinics, health centres and district hospitals (Guideline for Maternity Care in South Africa, 2016).

Furthermore, the National Committee for the Confidential Enquiry into Maternal Death (NCCEMD) in South Africa introduced a strategy to monitor the causes of maternal death (Moodley & Pattinson, 2018). These strategies, training programmes, models, and guidelines were developed to reduce maternal mortality. There is also an improvement regarding human and material resources at healthcare facilities. However, these were all done to assist in managing pregnancy and child health at the healthcare services to reduce maternal mortality.

Despite the government's efforts, maternal mortality remained a concern in Limpopo Province in SA. A study by Wondwossen Fantaye, Okonofua, Ntoimo and Yaya (2019) posits that the perspectives and beliefs of elders can critically influence whether PW

seek and utilise evidence-based maternal care. Mogawane's (2014) study emphasises a call to healthcare professionals to train and guide traditional health practitioners to improve the negative consequences of pregnancy and childbirth caused by their indigenous practices. Therefore, there is no trace of a training programme developed for elderly women in Limpopo Province, SA. In this light, this study explores the roles of elderly women in participation in maternal health practices. It develops a training programme to improve the reduction of maternal mortality among the women of Limpopo Province, SA.

1.4 RATIONALE OF THE STUDY

The existence of two reproductive health systems in local villages causes some confusion concerning the handling of pregnancy issues. That is, the care offered by traditional health practitioner using their indigenous knowledge while health facilities were critical in providing professional assistance to PW, sometimes it would be too late to solve some challenges related to cultural and traditional norms. Such issues needed the contribution of elderly women in reproductive health who are in constant contact with pregnant and breastfeeding women. However, the contribution of elderly women to reproductive health is only realised when something goes wrong. Traditional midwifery services provide essential health care, support and advice during and after pregnancy and childbirth, largely based on experience and knowledge gained informally through the traditions and practices of the community of origin (WHO, 2015), however, It is a matter of discussion whether the lack of education in some TBAs and the way many attend deliveries are risky for the mother and their babies. About 9% of women in SA delivered in health care facilities, so most of the postnatal women who died outside of the facilities were either discharged with abnormal vital signs which gives a serious concern in terms of skills and competencies of some midwives too soon or developed complications later (Saving mother report, 2014-2016). About 9% of South African women gave birth in health care facilities, meaning the majority of postpartum women who died outside of health care institutions or experienced difficulties afterwards were either released with abnormal vital signs, and

as such, raising severe questions about the knowledge and skills of some midwives. Very little was known in academic circles about how elderly women contribute to reproductive health and how this could be enhanced. Many elderly women who may want to assist PW may resort to traditional and cultural practices, which are detrimental and may cause deaths, such as the use of herbal products which is believed that it protect the mother and the baby from evil spirits whereas some used to induce labour. These traditional medicine as a combination of different mixture of unknown composition causes harmful side-effects and even deaths (Thipanyane, Nomatshila, Oladimeji & Musarurwa, 2022). Reducing maternal mortality is crucial and required everyone in constant contact with PW, particularly elderly women.

The researcher's experience and literature review observed that the contribution of elderly women to maternal health was seldom discussed. Yet, this population plays a vital role in assisting PW during pregnancy, childbirth, and child upbringing. Elderly women in local communities have indigenous knowledge in caring for PW that could be fused with knowledge in medicine to develop a training programme to save the lives of expecting mothers. Currently, there is no trace of a research study conducted in Limpopo Province regarding the roles of elderly women in participation in maternal health practices. This study sought to develop a training programme that improved the reduction of mortality rates among rural women, utilising local elderly women of selected municipalities in the Vhembe and Blouberg Districts.

1.5 SIGNIFICANCE OF THE STUDY

This study is significant because it was beneficial in many ways when completed. Firstly, the study may have contributed to the reduction of maternal mortality in the local community through the participation of elderly women in assisting PW before getting assistance from the clinic. There were no guidelines for elderly women who were prepared to assist PW in local communities. The researcher was convinced that well-trained elderly women might be a stop-gap measure between the health facility when PW face unexpected complications. Elderly women should attend to the women

while professional assistance is sought. Secondly, the study might empower PW so that they seek to overcome some myths about pregnancy and seek professional health timely, thereby reducing maternal mortality. The implementation of the proposed training programme might assist elderly women with a set of guidelines to use in when dealing with PW, which might reduce maternal mortality. Similarly, the family with elderly women might have immediate reproductive health personnel to assist during pregnancy. Another important issue was that of the community, which might benefit by having enlightened elderly women who discourage traditional practices but handle pregnancy issues professionally. This might reduce maternal mortality. A community with elderly women enlightened in dealing with pregnancy contributes to reproductive health.

The benefits of this study extend to health organisations that might get complimentary personnel who manage pregnancy issues at the family level professionally and reduce the burden and lower maternal mortality statistics at the Department of Health (DoH). Furthermore, training institutions could be encouraged to incorporate the new training programme into the curriculum to assist midwifery educators in guiding students on how to work collaboratively with elderly women at the community level. From an academic perspective, this study added literature to the body of knowledge on the measures to reduce maternal mortality. Finally, the developed training programme could be adopted and implemented locally and nationally in other similar settings. Other countries could also draw ideas from the developed training programme. The recommendations from this study might assist in providing knowledge to policy developers.

1.6 STUDY PURPOSE, RESEARCH QUESTIONS AND OBJECTIVES

1.6.1 Purpose

To develop a training programme for elderly women to improve the reduction of maternal mortality rates in Limpopo Province, South Africa.

1.6.2 Research questions

The study's research questions are phrased as follows:

- What are the roles of elderly women in participation in maternal health practices?
- What kind of information do elderly women give to pregnant women and breastfeeding mothers?
- What are the views of midwives regarding the barriers that delay pregnant women and breastfeeding mothers from seeking early medical attention?
- What kind of training programme do elderly women need to improve the reduction of maternal mortality rates in Limpopo Province, South Africa?
- How should the training programme be developed to ensure the improvement of the reduction of maternal mortality rates?

1.6.3 Objectives

The study's research objectives are phrased as follows:

Phase 1: Situational analysis

- To explore and describe the roles of elderly women in the participation in maternal health practices in Limpopo Province, South Africa.
- To explore and describe the kind of information elderly women give to pregnant women and breastfeeding mothers.
- To explore and describe the views of midwives regarding the barriers to delaying pregnant women and breastfeeding mothers from seeking medical attention.

Phase 2: Development of training programme

- To describe and develop a training programme for elderly women participating in maternal health practices to improve the reduction of maternal mortality in Limpopo Province, South Africa.

Phase 3: Validation of the developed training programme

- To validate the developed training programme for elderly women participating in maternal health practices to improve the reduction of maternal mortality in Limpopo Province, South Africa.

1.7 DEFINITION OF TERMS

- **Community**

Community refers to a group of people living in the same geographical area with a common cultural and political background (Alkema, Chou, Hogan, Zhang, Moller & Gemmill, 2016). In this study, the community referred to members of the community living in the rural areas of Vhembe and Capricorn districts of Limpopo Province, South Africa.

- **Elderly woman**

Elderly people are defined as all the people aged 60 and older who comprise the elderly section of any population (Barikdar, Ahmed & Lasker, 2016). In this study, elderly women were any women from the age of 50 to 70 years living in rural villages of Vhembe and Capricorn districts of Limpopo Province.

- **Breastfeeding mother**

WHO (2016) defines breastfeeding mothers as mothers who provide the normal method of nutrients to babies needed for healthy growth and development. In this study, breastfeeding mothers (BMs) were mothers who delivered their babies within six days of coming to the clinic for a postnatal check-up.

- **Maternal death**

Maternal mortality refers to the death of a woman while pregnant or within 42 days following the termination of pregnancy, irrespective of the duration and the site of pregnancy. This can be from any cause related to or aggravated by the pregnancy or its management (Macdonald. & Magill-Cuerden, 2017). In this study, maternal death referred to all the women who died while pregnant or during delivery or the postpartum period due to pregnancy and its related complications.

- **Maternal mortality rates**

The maternal mortality rate is the number of maternal deaths per 100,000 women per year. It is calculated as the number of maternal deaths in a given period per 100,000 women of reproductive age (WHO, 2016). In this study, maternal mortality rates referred to the death of a woman during pregnancy, labour, and puerperium per 100,000 live births.

- **Midwives/Accoucheurs**

A midwife (MW) is a professional in healthcare who has undergone training specialising in pregnancy and childbirth, and assisting women in childbirth, postpartum women's sexual and reproductive health, and newborn care (Mosby, 2016). In this study, MW are referred to as trained registered MW registered at South African Nursing Council (SANC) (Nursing Act, Act 50 of 2005) who provide care to PW and assist during childbirth, the postnatal period and care of a newborn, recognising possible abnormalities, managing complications, and referring to more appropriate advanced levels of care.

- **Participation**

The International Classification of Functioning (ICF) defines participation as involvement in a life situation or as the lived experience of people in the actual context

in which they live (Piškur, Daniëls, Jongmans, Ketelaar, Smeets, Norton & Beursken, 2014). In this study, participation was the involvement of elderly women rendering care to PW in promoting maternal health.

- **Pregnant woman**

A pregnant woman is a grownup female human with a developing embryo in her uterus (Stevenson, 2015). In this study, a pregnant woman was a full-grown pregnant female who attended ANC at the healthcare facilities in Musina Local Municipality within the Vhembe District and Blouberg Local Municipality within the Capricorn District in the Limpopo Province.

- **Programme**

A programme is a set of coordinated projects implemented to meet specific objectives within defined time, cost and performance parameters (International Federation of Red Cross and Red Crescent Societies, 2010). In this study, the programme was a long-term plan of action designed for elderly women to promote maternal health, thereby reducing maternal mortality.

- **Training**

Training is defined as the systematic acquisition of skills, rules, concepts or attitudes that results in improved performance in another environment (Goldstein & Ford, 2002). In this study, training was acquisition of the skill to empower elderly women to improve maternal health.

1.8 PARADIGMATIC PERSPECTIVE

A paradigm is a worldview or ideology. A paradigm implies the standards or criteria for assigning value or worth to the processes and procedures of the discipline, and the methods of knowledge development within a discipline (Chinn & Kramer, 2019). The purpose of this study is to develop a training programme for elderly women to improve the reduction of maternal mortality in Limpopo Province. Paradigms influence the

assumptions that are fundamental to the theoretical reasoning of this study; thus, the study was directed by three assumptions that entail meta-theoretical assumptions, theoretical assumptions, and methodological assumptions. These are briefly discussed below.

1.8.1 Meta-theoretical assumptions

Meta-theory is defined as assumptions about reality (Brink, Van der Walt & van Rensburg, 2017). The study assumed that elderly women provided care and support to PW and BFMs in a home setting; thus, they have more influence regarding the utilisation of healthcare services. However, reports reveal that maternal mortality is influenced by traditional and cultural practices that limit PW and BFMs from having access to skilled birth attendants. This implies that training programmes for elderly women in participation in maternal health practices are essential to improve the reduction of maternal mortality. Meta-theoretical assumptions were grounded in interpretivism approaches which is suitable with qualitative research study.

1.8.1.1 Interpretivism approach

The premise of interpretive research is that social reality is influenced by human experiences and social contexts. Researchers who practice interpretivism interpret various aspects of their studies. The subjective interpretivism method focuses on the painstaking collection and analysis of subjective data, which is then presented in a narrative format. The interpretive process of data coding is highly valued, stated, and celebrated in qualitative research (Williams, 2019). In this study, participants were involved in describing the meaning of their roles in participation to maternal health practice. The interpretivism method was used to analyse the data that were gathered for this study. Since the participants were elderly women who care for PW and BFMs at home, pregnant women, breastfeeding mothers, and midwives who provide care for PW and BFMs at clinics, the information from the participants was deemed reliable

because it was gathered from the . Unstructured interviews were utilized to gather information from the participants in relation to a key question. The researcher's term of reference for developing training program included the following assumptions as described below, ontological, epistemological, methodological and axiological, phenomena to make up the study's core components.

1.8.1.2.1 Ontological assumption

The ontological premise concerns the nature of reality, which embraces numerous realities. Researchers accept the concept of many realities and present these realities in their reports by examining various types of evidence from different individuals (Creswell, 2014). For this study, the reality of questions was: what are the roles of elderly women in participating to maternal health practices?, what kind of information elderly women give to PW and BFMs regarding cultural practices? and what are the views of midwives regarding barriers delaying PW and BFMs in utilising health care services? The researcher interacted with the elderly women, PW and BFMs and midwives during data collection to audio record the interviews and took field notes during interviews. However, verbatim quotations and field notes obtained during data collection were used to identify themes and sub-themes.

1.8.1.2.2 Epistemological assumption

Wager, Kawulich and Garner (2012) as cited in Ikeakanam (2019) defines epistemological assumption as the nature of knowledge, objective and independent of the values, interest and feelings of a researcher. These constitute a view of the world. Epistemology deal with how a researcher acquired the information from the participants to get answers to research questions. In this study, the researcher used FGDs to collect data from the elderly women, in-depth individual interviews to collect data from PW and BFMs and midwives. It was assumed that the collected data from the participants would enable the researcher to gain evidence on what are the roles of

elderly women in maternal and child health to improve the reduction of maternal mortality rates.

1.8.1.2.3 Methodological assumption

A qualitative approach was employed whereby an exploratory, descriptive and contextual design was used to unpack phase one objectives. Phase one was a situational analysis having three objectives that were described as follows: to explore and describe the roles of elderly women in participation to maternal health practice, to describe the kind of information elderly women give to the pregnant women and to describe the views of midwives regarding the barriers for delaying PW and BFM to seek medical intervention. Based on the findings for phase one objectives, conceptual framework of Dickoff et al., (1968) form basis of phase two objectives which is the development of training programme, however Kolb's experiential learning cycle and SEM assisted the study to develop training programme for elderly women to improve the reduction of maternal mortality and phase three for validation of training programme described following Chinn and Kramer (2019) criteria.

1.8.2 Theoretical assumptions

Nkwake (2013) states that theoretical assumptions in a study are significant to guide the argumentation, evidence generation and conclusion process. Theoretical assumptions comprise models and theories that clarify, forecast and enable a researcher to understand a phenomenon or a challenge (Swanson, 2013). The following frameworks were used in this study:

- Social Ecological Model (SEM) (Baral, Logie, Grosso, Wirtz and Bevrer, 2013)
- Dickoff, James and Wiedenbach's Element of Practice Theory (1968)
- Kolb's Experiential Learning Cycle (Kolb, 1984)
- Chinn and Kramer (2019)

The above frameworks are discussed below.

1.8.2.1 Social Ecological Model

This study was conceptualised within the Social Ecological Model (SEM) of human behaviour adapted from Baral, Logie, Grosso, Wirtz and Bevrer (2013). The SEM depicts the social-ecological environment with five important levels of connected systems of concentric circles, where all the systems interact with one another (Baral et al., 2013; Coetzee, 2015; Mehtala, Saakslanti, Inkinen & Poskiparta, 2014).

Distinct names are used to refer to each of the five hierarchical nested levels of the model, namely:

- Policy/enabling environment
- Organisational
- Community
- Interpersonal (intrapersonal)
- Individual (interpersonal)

To explain the levels of context in the model, the SEM placed the individual at the centre of the model, where levels are nested inside each other. For this study, an individual placed at the centre of each level has intrapersonal experience based on maternal and child health. SEM assisted the researcher in unpacking and understanding individual experiences and behaviours that led to the development of the training programme for elderly women to improve the reduction of maternal mortality. A detailed discussion of the above is provided in Chapter 2.

1.8.2.2 Dickoff, James and Wiedenbach's (1968) Practice-Orientated Theory

The Practice-Orientated Theory by Dickoff, James and Wiedenbach (1968) is a conceptual framework that forms the basis of training programme development. Dickoff et al., (1968) include six elements of the practice-oriented theory, which

describe the concepts and analyses the activities to understand the study's goals. The Practice-Orientated Theory has the following elements:

- Agents (who or what performs the activity?)
- Recipients (who is the recipient of the activity?)
- Context (in what context are the activities performed?)
- Dynamics (interaction, challenges and findings)
- Procedure (what is guiding the procedure or process of the activity?)
- Terminus (what are the end results of the activities?)

In this study, the agent is the healthcare professional who performed the activity, and the elderly women are the recipients of the activity. The energy source was derived from situational analysis; the procedure was a training programme for elderly women so that the end results of the activity are achieved (this is the reduction of maternal mortality rates). A detailed discussion of the above is provided in Chapter 5.

1.8.2.3 Kolb's Experiential Learning Cycle

Kolb's Experiential Learning Theory was adopted in this study to develop the training programme. There are four stages of learning described in Kolb's Experiential Learning Cycle. The four stages of learning are as follows:

- In a concrete experience, a person explores an activity that pertains to experience by doing.
- Reflective observation is where a person must reflect on previous experience.
- Abstract conceptualisation is when a person learns from experience.
- Active experimentation is where a person tries out what has been learned (Macleod, 2013).

A detailed discussion of Kolb's Experiential Learning Cycle is provided in Chapter 6.

1.8.2.4 Chinn and Kramer (2019)

Chinn and Kramer (2019) refer to how well the theory can be understood and consistent ideas conceptualised to ensure minimal elements within the descriptive category, particular concepts, and their relationship. The training programme was validated according to Chinn and Kramer's (2019) questions:

- How clear is the programme?
- How simple is the programme?
- How general is the programme?
- How accessible is the programme?
- How important is the programme?

A detailed discussion of Chinn and Kramer's (2019) steps for evaluating the training programme is provided in Chapter 7.

1.8.3 Methodological assumption

A methodological assumption is a strategy, plan of action, process or design lying behind the choice and use of methods and linking the choice and use of methods to the desired outcomes (Ahmed, 2008). The methodological assumptions guiding this study align with Botes, Nolte and Poggenpoel's (2004) functional approach, which implies that research should be functional and contribute to the body of knowledge and the improvement of quality of life. For this study, a qualitative approach was employed using an FGD and in-depth individual interviews that produced data that provided a clear understanding of the roles of elderly women in participation in maternal health practices, the kind of information elderly women give to PW and BMs, the views of MW/accoucheurs regarding barriers for delaying PW and BMs in seeking medical attention, and what could be done to improve the reduction of maternal mortality.

A functional approach was predicted for the research in that the training programme developed would be used to assist the government and the DoH in reducing the number of maternal deaths; hence there would be a reduction in the number of lawsuits.

1.9 RESEARCH METHODS

The study methods were in three phases. Phase 1 was a situational analysis, where a qualitative approach was used. Phase 2 was the development of a training programme for elderly women to improve the reduction of maternal mortality rates in Limpopo Province, South Africa. Finally, phase 3 was the validation of the developed training programme. The study methods and reasons for the choices are discussed in detail in Chapter 3.

1.9.1 Study setting

This research study was conducted in a natural setting. Gray, Grove and Sutherland (2017) articulate that a natural or field setting is an uncontrolled real-life situation or environment. The study was conducted in rural villages of Limpopo Province. The province is situated in the North-Eastern corner of South Africa and shares borders with Botswana, Zimbabwe and Mozambique. The province has five districts, namely: Capricorn, Mopani, Sekhukhune, Vhembe, and Waterberg. The province is considered poor, with approximately 80% of people living in rural areas (DoH, 2012). Only two districts, Vhembe and Capricorn, were used in this study. The Vhembe District had the biggest population and the highest number of PW (Statistics South Africa (Stats SA) (2016). In contrast, the Capricorn District was chosen due to its escalating number of maternal mortalities (Saving Mothers Report, 2014-2016). The health system belief of the people residing in this province leads them to preferably seek help from spiritual and traditional practices more than western medicine, which contributes to delays in seeking medical attention that leads to maternal mortality.

1.9.2 Research approach

The study was conducted in three phases: Phase 1 is a situational analysis, Phase 2 develops the training programme, and Phase 3 validates the developed training programme.

1.10 PHASE 1: SITUATIONAL ANALYSIS

Phase 1 encompasses the implementation of research methods and design that provide answers to the research questions formulated in line with the topic under study. The study findings obtained in Phase 1 during interviews with the participants led to the development of the training programme for elderly women to improve the reduction of maternal mortality in Phase 2 of the research approach and validation of the developed training programme in Phase 3.

1.10.1 Research and methods

The research design for this study was qualitative, explorative, descriptive, and contextual. Sileyew (2019), Rahman (2017), Burns and Grove (2016) and Brink, Van der Walt and Van Rensburg (2014) describe the qualitative, explorative, descriptive, and contextual design. These methods are discussed in detail in Chapter 3.

- **Qualitative**

The study involved the collection of qualitative data on personal experience, feelings, emotions, attitudes, and beliefs on the topical issue of mortality among PW (Sileyew, 2019; Burns & Groove, 2016). The study used a qualitative approach to generate detailed descriptions of participants' feelings, opinions and experiences and interpret the meaning of their actions (Rahman, 2017). This study used a qualitative approach to understand practical issues related to maternal mortality rates among elderly women, PW, and MW/accoucheurs. The data collection methods used entailed a focus group discussion (FGD) and in-depth individual interviews narrating the lived experience of factors contributing to maternal mortality.

- **Exploratory**

The exploratory method is typical when examining a new interest (Brink, Van der Walt & Van Rensburg, 2014). In this study, the exploratory design was appropriate because the researcher does not know much about the roles of elderly women in participation in maternal health practices. The exploratory design dictates that the researcher observed the study needs analysis in order to familiarise themselves with the roles of elderly women in participation in maternal health practices leading to maternal mortality in the Limpopo Province.

- **Descriptive**

The purpose of using the descriptive design is to observe, describe, and document aspects of a situation as it naturally occurs (Pilot & Beck, 2016). Some studies confirm that researchers who use descriptive research design can present the nature of the picture of the situation, social setting or relationship by allowing participants to describe the aspect and their deeper meaning of the specific phenomenon (de Vos, 2017; Strydom, Fouché & Delport, 2017). For this study, data were obtained through deep FGDs regarding the roles of elderly women in participation in maternal health practices, allowing each participant to describe the picture of the involvement in maternal health.

- **Contextual**

This study was contextual, as the FGD was conducted with elderly women aged 55 and above. In contrast, an in-depth individual interview was conducted with PW who previously delivered a baby, BMs who came for postnatal visits within five days post-delivery, and MW with at least two years of working experience rendering maternity care. The study focused on selected villages and clinics around Vhembe and Capricorn Districts as the study settings. Other districts around Limpopo and other

participants were omitted. The study focused on improving the reduction of maternal mortality; thus, other mortalities were excluded.

1.10 2 Population and sampling

- **Population**

A population is a group of persons or objects that are of interest to the researcher (Polit & Beck, 2014). This implies that a population refers to all the individuals with the features that meet the researcher's criteria (Creswell & Poth, 2017). This study's target population consists of elderly women, PW, BMs, and MW from rural areas in the Vhembe and Capricorn Districts of Limpopo Province.

- **Sampling method**

Sampling is the process by which the researcher selects a sample from the accessible population to obtain information regarding a phenomenon that represents the population of interest for the study (Burns & Grove, 2016).

Non-probability sampling allows the researcher to select individuals and sites because they are available, convenient, and represent some characteristics the researcher wants to study (Creswell, 2014). Purposive sampling was used to select the districts and participants, whereas random sampling was used to select the villages in the Vhembe and Capricorn Districts of Limpopo Province. A detailed discussion of the sampling method is provided in Chapter 3.

1.10.3 Data collection

Data collection is the gathering of information which addresses a research problem (Polit & Beck, 2017). Data collection is the precise, systematic gathering of information relevant to the research purpose or specific objective, questions, or hypothesis of the study (Burns & Grove, 2016). Data collection encompasses preparation, data

collection instrument, and the role of the researcher. A detailed discussion of data collection is provided in Chapter 3.

1.10.4 Pre-testing

Pre-testing is a commonly recommended effective method of improving the trustworthiness and credibility of qualitative data collection instruments and procedures (Hurst, Arulogun & Ovbiagele, 2015). In this study, pre-testing was done before the actual study to provide a chance to revise the questions framed and procedures to ensure that appropriate questions were asked. It also ensured that questions did not make participants uncomfortable or confused, and it was an opportunity to assess the probing skill of the researcher as it influenced the information needed. This is discussed in detail in Chapter 3.

1.10.5 Data analysis

Data analysis was conducted using eight-step guides developed by Tesch cited in Creswell (2014) that should be considered when analysing qualitative data. A detailed discussion of Tesch's data analysis steps is provided in Chapter 3.

1.10.6 Literature control

Literature controls were done after data analysis on the identified theme. This is discussed in detail in Chapter 4.

1.11 MEASURES TO ENSURE TRUSTWORTHINESS

The study adhered to measures to ensure trustworthiness. A detailed discussion is provided in Chapter 3:

- Credibility
- Dependability
- Conformability

- Transferability
- Authenticity

1.12 ETHICAL CONSIDERATIONS

Ethical principles were adhered to throughout the study. The following ethical principles were explained in Chapter 3:

- Permission to conduct the study
- Covid-19 protocol
- Informed consent
- Right to self-determination
- Coercion
- Right to anonymity and confidentiality
- Principle of justice

1.13 PHASE 2: TRAINING PROGRAMME DEVELOPMENT

Training programme development was done after the analysis of collected data. A detailed discussion is provided in Chapter 6.

1.14 PHASE 3: VALIDATION OF DEVELOPED TRAINING PROGRAMME

The developed training programme was validated after the training programme was done. A detailed discussion is provided in Chapter 8.

1.15 DISSEMINATION OF THE STUDY FINDINGS

The findings of this study will be disseminated using the following methods:

- Publications in an accredited journal
- Oral presentation or poster presentation at organised international and national conferences

- Presentation to Limpopo Department of Health (DoH)

1.16 LAYOUT OF THE STUDY CHAPTERS

The study is divided into nine chapters, as described below:

1.16.1 Chapter 1: Orientation to the Study

Chapter 1 provides the orientation and overview of the study. It comprises the introduction and background, problem statement, purpose of the study, objectives, research questions, rationale of the study, theoretical framework, definition of terms, research setting, research approach and research design, and chapter layout.

1.16.2 Chapter 2: Literature Review

Chapter 2 reviews relevant literature pertaining to the study. It presents a conceptual framework guiding the study, followed by explaining concepts relevant to the study topic and themes.

1.16.3 Chapter 3: Research Methodology

Chapter 3 elaborates on the detailed research methodology where a qualitative approach was employed. The research design, research setting, population, sample and sampling procedure, pre-testing, data collection method, data analysis, trustworthiness, and ethical considerations were discussed.

1.16.4 Chapter 4: Findings and Discussion

Chapter 4 comprises a thematic analysis of the collected data through a focus group discussion and in-depth individual interviews, findings, discussion and literature control.

1.16.5 Chapter 5: Theoretical framework guiding the development of Training Programme

Chapter 5 describe the theoretical framework guiding the development of training programme. The six elements of practice theory by Dickoff assisted in the development of the programme.

1.16.6 Chapter 6: Development of the training programme

Chapter 6 describe the development of the training programme for elderly women to improve the reduction of maternal mortality. Four stages of Kolb's learning cycle was utilised to assist with development of the training cycle.

1.16.7 Chapter 7: Guidelines to operationalise the implementation of the Developed Training Programme

Chapter 7 describe the guidelines to operationalise the implementation of the training programme

1.16.8 Chapter 8: Validation of the Developed Training Programme

Chapter 8 Describe validation of the developed training programme. Categories of Chinn and Krammer (2019) was used to validate the developed training programme

1.16.9 Chapter 9: Conclusions, Contribution, Limitations and recommendations of the Study

Chapter 9 comprises the conclusion, contribution, limitations and recommendations of the study.

1.17 SUMMARY

This chapter provided an orientation to the study, which included the introduction, background, problem statement, purpose and objectives, rationale, significance, research methodology, measures to ensure trustworthiness, and ethical considerations of the study and outline of the study chapters. The relevant concepts were defined and contextualised as used in the study. The next chapter provided an overview of reviewed literature relevant to the proposed study.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter presented the orientation to the study, introduction, background, problem statement, the study's rationale, the significance of the study, purpose, study questions, and objectives. SEM formed the basis for the theoretical framework. The current chapter explains the literature review in a comprehensive summary of previous research, such as scholarly books, journal articles, and theses regarding the topic of the study. This is done to situate the research topic concerning the existing knowledge. A literature review is a theoretical research published in scientific journals, reference books, textbooks, government reports, policy statements and many other materials regarding the theory, practice and results of scientific inquiry (Garrard, 2021). The literature review aims to send the reader what is currently known regarding the topic under study (Burns & Grove, 2017).

This study first undertook a narrative literature review to evaluate and summarise the body of literature that covers the first three objectives for situational analysis, to direct the planning and execution of the qualitative research approach. A narrative literature review is a comprehensive, critical and objective analysis of the current knowledge on a topic (Baker, 2016). Followed by narrative literature derived from the theme after data were analysed to justify the findings of the qualitative approach concerning the existing body of knowledge. Literature shows poor maternal healthcare-seeking behaviour stems from multiple influences and exposures in a woman's life (Ekpenyong, Bond & Matheson, 2019; Oiyemhonlan, Udofia & Punguyire, 2013).

The SEM was used to critically analyse barriers to the practice of maternal healthcare among PW and BMs in rural areas of Limpopo Province. The model looks at the individual level; such as socioeconomic status, knowledge, attitude towards the

utilisation of healthcare services, educational level, a social environment which includes the relationships, the culture and the society with whom the pregnant woman interacts; physical environment consisting of buildings, roads and open spaces; and can provide opportunities or barriers to health (Tappe, Glanz, Sallis, Zhou & Saelens, 2013). The physical environment is important because it includes natural factors, such as geographical accessibility, perceived qualities of healthcare services, proximity to health facilities, transport and safety, which are all important factors which determine if pregnant and breastfeeding women are able and permitted by their family and community to participate in activities such as visiting health facilities (Giles-Corti, Kelty, Zubrick, Villanueva, 2009; Tsawe, Moto, Netshivhera, Ralesego & Nyathi, 2015). The policy sphere assists in the interpretation and implementation of the current policies at the clinic, municipality, district, provincial and national level in order to regulate and support social/physical environment or individual behaviour to protect mothers and children from death.

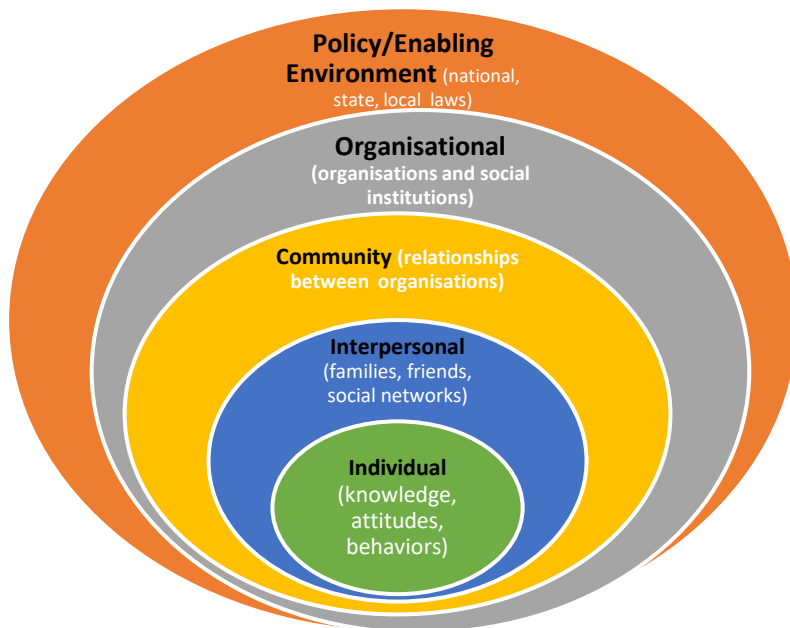
The literature review discussed the theoretical framework SEM guiding the study, the topics of individual knowledge and attitude regarding the utilisation of healthcare services, physical and environmental factors as barriers leading to unhealthy choices, the influence of family and community members on the utilisation of healthcare services and the use of indigenous knowledge, practices and measures in place to reduce maternal mortality among PW, and the postnatal period as a crucial stage for possible maternal mortality.

2.2 THEORETICAL FRAMEWORK: SOCIAL ECOLOGICAL MODEL

The SEM in Figure 2.1 was used as a theoretical framework to guide the research study. The SEM is one of the most popular theories used to investigate certain behaviours in health by many researchers (Berk, 2000; Coetzee, 2015). This theory was promoted by Bronfenbrenner in 1997, theorising that the socio-ecological environment played an important role in the psychological and social aspects of human development (Coetzee, 2015; Kagee, Remien, Berkman, Hoffman, Campos &

Swartz, 2012). In this study, the SEM framework was used to understand the multiple levels of a social system and interactions between individuals (PW and elderly women) and the environment within the communities they live.

The SEM depicts the social-ecological environment with five important levels of connected systems of concentric circles, where all the systems interact with one another (Baral et al., 2013; Coetzee, 2015; Mehtala, Saakslanti, Inkinen & Poskiparta, 2014). To explain the levels of context in the model, the SEM places the individual at the centre of the model, where levels are nested inside each other. Distinct names are used to refer to each of the five hierarchical nested levels of the model: individual (intrapersonal), interpersonal, community, organisational, and policy/enabling environment (Gombachika, Fjeld, Chirwa, Sundby, Malata & Maluwa, 2012; Kagee et al., 2012; Golden & Earp, 2012). Figure 2.1 highlights the Social Ecological Model.



Source: Adapted from Baral, Logie, Grosso, Wirtz and Bevrer (2013)

Figure 2.1: The Social Ecological Model

2.2.1 Policy/Enabling environment

This level in the SEM is the policy level that influences behaviour change (Boulton, Horne & Todd, 2017). The literature shows that local, state, national and global laws and policies for the allocation of resources for maternal, newborn, and child health and access to healthcare services are in place and need to be enforced for behaviour change among individuals, families and communities (Boulton, Horne & Todd, 2017).

For policies to be effective, they require an enabling environment which allows reasonable behaviour change. In this study, the SEM model enabled the researcher to investigate intervention activities affected by policies to reduce maternal mortality in the two districts.

2.2.2 Organisational

Gombachika et al., (2012) posit that the organisational level determines the rules, policies, and formal and informal structures an individual or group must adhere to. Organisations are social institutions with rules and regulations for operations that affect how well services are provided to an individual or group (Coetzee, 2015; Kagee et al., 2012; Cramer & Kapusta, 2017). For example, clinics and hospitals are organisations set up to provide health services professionally but different from cultural practices and the traditional healers in the same community.

Organisations in a community can play a dual role, such as implementing health rules, regulations and policies when providing services or enforcing an individual, families and communities to take certain precautions to prevent health problems from getting out of control (Eriksson, Ghazinour & Hammarstro, 2018). A study by Golden and Earp (2012) established that the organisational level had close to a 15% impact on changing an individual's behaviour. In this study, it was important to examine the influence of the various organisations on the behaviour of elderly women and PW in relation to behaviour change. The organisations include clinics, hospitals, Ward-Based

Outreach Teams (WBOTs) and traditional authorities. The stated organisations assisted individuals and communities with health advice or related matters which assist in behaviour change (Guta, Risenga, Moleki & Alemu, 2018). However, these organisations' efforts were stifled by individuals and groups of pregnant and elderly women who continued to believe in traditional practices (Naidoo, Railton, Jobson, Matlakala, Marincowitz, McIntyre, Struthers & Peters, 2018). For example, they do not report early pregnancies until something serious has happened (Jacobs, Michelo & Moshabela, 2018). This study also ascertained which behaviour of elderly and PW can be influenced by the organisations. The challenge is that organisations might not have directed methods of sanctioning pregnant and elderly women who do not conform to the regulations.

2.2.3 Community

Golden and Earp (2012) emphasise that using SEM enables the researcher to establish which of the community-based interventions were most likely to be effective in solving a prevailing health problem in each community. According to Golden and Earp (2012), intervention activities at the community level were likely to have a success rate of 44% in solving the problems faced by patients as they had a greater degree of effect on individuals and community members. By advocating the use of SEM in this study, the researcher sought to establish those community activities that would influence maternal mortality which could be included in the intervention to improve the reduction of maternal mortality. In this case, it was possible to determine how societal norms, cultural values and standards affect maternal mortality in Limpopo Province. Elderly and PW react differently to the norms and values of their communities as the former respects cultural values compared to the latter, who could be influenced more by modern ways of living, particularly technologies. However, the community have several ways of dealing with non-conformity to cultural norms.

A study of this nature requires examining these facets to provide sound grounds to develop an intervention to reduce maternal mortality. Haas et al., (2014) posit that

communities can change how they behave for the better or worse depending on the prevailing circumstances. However, in African culture elderly women and PW have a certain degree of respect in the family and community. In many cultures, it is taboo for an unmarried woman to get pregnant due to fear of being victimised (Michelo & Moshabela, 2018). The community and families usually sanction women who get premarital pregnancy and are pregnant by siblings, married men or relatives (Sussan, Olujide & Ebere, 2014; Fawole & Adeoye, 2015). On such occasions, affected women tend to hide the pregnancy until it is too late to get assistance. This study used the SEM to find strategies to change these behaviour patterns.

2.2.4 Interpersonal

According to Golden and Earp (2012), the interpersonal level describes formal and informal social networks and social support systems that can influence individual behaviours. Gombachika et al., (2012) posit that social networks and support systems include family members, friends, peers, co-workers, religious networks, customs or traditions. These have effects on the behaviour change of individuals. According to Gombachika et al. (2012), interpersonal processes are important to investigate because they provide an individual with social identity and role definition when interacting with their partners, friends and family members. A study by Golden and Earp (2012), which used the SEM model, established that family-based interventions had a success rate of 93% and were higher than other settings of interpersonal-level activities. However, this study used SEM to determine which interpersonal characteristics of elderly women would have effective activities to be included in the intervention.

2.2.5 Individual (Intrapersonal)

The individual or intrapersonal level refers to several characteristics of an individual that influence behaviour change (Baral et al., 2013; Henderson & Baffour, 2015). Important characteristics include knowledge, attitudes, behaviour, self-efficacy, developmental history, gender, age, religious identity, racial/ethnic identity, sexual

orientation, economic status, financial resources, values, goals, expectations, literacy, and stigma (Newes-Adeyi, Helitzer, Caulfield & Bronner, 2000; Gombachika et al., 2012; Golden & Earp, 2012). In this study, the impact of individual characteristics of elderly women and those of PW in maternal mortality was investigated theoretically and empirically to improve the reduction of maternal mortality. In addition, the findings were used to identify intervention activities (development of a training programme) that target behavioural change among both elderly and PW in order to improve the reduction of maternal mortality in Limpopo Province.

2.3 INDIVIDUALS' KNOWLEDGE AND ATTITUDE REGARDING THE UTILISATION OF HEALTHCARE SERVICES

There is abundant literature showing that giving birth in a healthcare facility is a more critical factor in reducing maternal mortality (Scott & Ronsmans, 2018). This makes it important for PW to access ANC as early as possible to reduce pregnancy complications (Conway & Kutinova, 2019). However, factors such as poverty, distance infrastructure, lack of information, inadequate services, and cultural practices prevent women from seeking healthcare services during pregnancy, labour, and postpartum (WHO, 2016). It is essential to have an insight into these barriers so that an appropriate intervention method can be implemented to improve maternal health and good perinatal outcomes in rural communities where most South Africans live. Several studies on maternal health reported that knowledge and attitudes are among the important factors that enable women to first place their health in good condition by seeking suitable health services in their communities (Ambreen & Shah, 2018; Mannava, Durrant, Fisher, Chersich & Luchters, 2015). However, although scarce, research has been conducted in Musina and Blouberg Municipalities with regard to the effect of knowledge and attitudes of PW, BMs, and elderly women regarding the use of healthcare facilities (Mogawane, Mothiba & Malema, 2015). The literature shows maternal mortality occurs because of complications during and after pregnancy and childbirth (WHO, 2019). These preventable or treatable complications do not just happen, but could have existed before pregnancy and then developed to proportionally

unmanageable levels during pregnancy due to poor maternal health practices (Sageer, Kongnyuy, Adebimpe, Omosehin, Ogunsola & Sanni, 2019). In agreement, several factors connive to cause poor maternal health practices, including lack of knowledge, bad attitude towards health services, taking advice from the wrong people, procrastination in revealing pregnancy due to fear of husbands or family members, poverty, and cultural practices (Montagne, 2017; Kululanga, Kadango & Lungu, 2020; Dahab & Sakellariou, 2020).

In this study, the following three sub-sections present a critical literature review on knowledge and attitudes regarding the utilisation of healthcare services from the perspective of PW, BMs, and elderly women.

2.3.1 Pregnant women

Health knowledge is a key factor that enables PW to be aware of their rights and health status to seek appropriate antenatal healthcare services (Maputle, Lebese, Khoza, Shilubane & Netshikweta, 2013). The analysis of maternal mortality in Musina and Blouberg Districts reveals that many women from the rural areas die during pregnancy, childbirth and the postnatal period. Most maternal death cases occur because PW only come to seek healthcare assistance when it is too late and complicated to assist the women (Zhao, Kulane & Gao, 2019). This also applies to those women who terminate a pregnancy through street abortion by untrained personnel, only to realise their mistakes when their health has deteriorated beyond improvement.

A study by Nigatu, Gebremariam and Abera (2014) reveals that maternal mortality is usually due to a lack of autonomy in healthcare choices among rural women due to a lack of knowledge and attitudes that affect decision-making. The study further asserts that factors that impeded women's attainment of healthy and fulfilling lives operated at personal, social and highly public levels were related to knowledge and information. Women knowledgeable about maternal and child health services were ten times more

likely to be highly self-directed in deciding on their health than those who were not knowledgeable (Nigatu, Gebremariam & Abera, 2014). This implies that maternal health knowledge influenced child-bearing mothers to decide to utilise healthcare services. A study by Birmeta, Dibaba and Woldeyohannes (2013) found a significant association ($P < 0.05$) between ANC attendance with some demographic and health-related factors such as knowledge of maternal healthcare and attitudes to the utilisation of healthcare services by PW.

The attitude towards the utilisation of healthcare services was also affected by the type of pregnancy women had, with those with planned pregnancies more likely to utilise healthcare services than those with unplanned pregnancies (Birmeta, Dibaba & Woldeyohannes, 2013). Therefore, good health practices automatically accompany adequate knowledge and desirable attitudes about maternal health (Abdulraheem, Olapipo & Amodu, 2012). Besides, a study by Mogawane, Mothiba and Malema (2015) reports that indigenous practices among rural PW supported by advice from traditional health practitioners (THPs) also contributed to the limited use of healthcare services. Although THPs may be skilful in maternal care, this should not have stopped PW from seeking professional and safe health services from nearby healthcare facilities. This indicates profound limited knowledge about good maternal healthcare and poor attitude towards health services provided by local healthcare services in rural communities among PW. However, Getachew, Kassa and Amsalu (2017) state that good knowledge about the causes of maternal mortality by all women is important in improving the reduction of maternal mortality.

Women with good knowledge of maternal health were likely to use reliable sources of information, always be in contact with health facilities, and know the importance of medical follow-up during ANC and postnatal care (Getachew, Kassa & Amsalu, 2017). On the contrary, poor knowledge and negative attitudes towards maternal healthcare reflected upon poor on the importance of PW and BMs utilising healthcare facilities unless a severe health problem arises. Consequently, it is paramount for women and their families to know about reducing maternal mortality during pregnancy, delivery

and the postpartum period because there are risks associated with every pregnancy (Getachew, Kassa & Amsalu, 2017; WHO, 2019). Furthermore, studies on maternal health concur that PW with few or inadequate visits and those who delay starting ANC than the first trimester have poorer pregnancy outcomes that might lead to maternal mortality (da Fonseca, Strufaldi, de Carvalho & Puccini, 2014; Bhaskar, Deo & Neupane, 2015). Therefore, the purpose of increasing the number of antenatal visits is not necessarily to improve pregnancy outcomes, but to enable PW to get quality care to reduce complications (Abimbola, Makanjuola, Ganiyu, Babatunde, Adekunle & Olatayo, 2016; Chimatiro, Hajison, Chipeta & Adamson, 2018).

Kaswa, Rupesinghe and Longo-Mbenza (2018) acknowledge that ANC improves pregnancy outcomes, but poor visits to health facilities result in increased maternal and infant morbidity and mortality. Although South Africa has 97% ANC coverage compared to other middle-income countries, late attendance and complete none attendance seriously affect the optimum benefits of ANC services in rural places (Amnesty International, 2014; Assegaai, Reagon & Schneider, 2018; Erasmus, Knight & Dutton, 2020).

A study by Chimatiro, Hajison, Chipeta and Adamson (2018) which investigated factors contributing to low antenatal attendance during the first trimester among rural Malawian women, concluded that inadequate knowledge about the ideal starting time ANC led to poor visits to health facilities to seek medical assistance. Many factors affect the knowledge and attitude of PW regarding the utilisation of health facilities. For example, maternal health knowledge among PW was linked to their education level and needed to be considered in healthcare (Figueiredo, Gonçalves, Batista, Akerman, Pinheiro & Nascimento, 2018). Knowledge is a contextual factor in the Musina and Blouberg Districts that could prevent PW from attending health services on time or completely avoiding them. Maternal knowledge among PW can be increased by many activities, such as home visits, health education, pre-conception care, ANC consultations, referrals to specialised care and outreach, which can influence attitudes toward the utilisation of health facilities in rural communities. In general, women with

higher educational levels tend to seek more preventive care, which substantially reduces maternal mortality because of their good knowledge and attitudes about healthcare services (Figueiredo, Gonçalves, Batista, Akerman, Pinheiro & Nascimento, 2018). A study by Warri and George (2020) reveals that some PW perceived the main purpose of the early initiation of ANC as to know the state of the baby and since the baby was not fully formed in the first trimester, therefore perceived the early initiation of ANC to be a waste of time and money. This implies that PW seem to place very little concern on early ANC because they regard pregnancy as a normal health condition with insignificant issues that need them to seek healthcare. In contrast, Sibiyaa, Ngxongob, and Jacqueline (2018) concluded that the staff attitude towards PW was among the factors that led to no utilisation of ANC services in the Kwa-Mkhizwana rural community.

2.3.2 Breastfeeding mothers

Many BMs are required to continue to take the treatment regularly and consider postnatal visits to healthcare services to prevent complications that occur after childbirth (Hussainy and Dermele, 2011). The importance of breastfeeding in enhancing infant and maternal health is well documented in the professional literature (Radzyminski & Callister, 2015); however, very few studies exist on why BMs in rural villages stop or avoid using health facilities. BMs in rural villages tend to have limited knowledge about the need to seek medical services following childbirth continuously. This is confirmed by a study on breastfeeding knowledge and practices among mothers of children under two years in Southwest Nigeria, which established a lack of knowledge in both breastfeeding and maternal health (Akinyinka, Olatona & Oluwole, 2016). This study concluded that BMs with limited maternal knowledge discontinued visiting health services and breastfeeding without professional advice. Tlou (2018) opines that longitudinal studies have been conducted on the knowledge of BMs' characteristics in sub-Saharan rural areas concerning maternal mortality in BMs. For this reason, individual risk factors for maternal mortality among BMs remain unknown, making it difficult to make meaningful conclusions about the risk factors (Tlou, 2018).

Studies in maternal mortality among BMs hardly refer to the importance of knowledge and attitudes with regard to the utilisation of health facilities. For example, much of the literature is on the importance of breastfeeding only and the child's health (Garenne, Kahn, Collinson, Gómez-Olivé & Tollman, 2013; Radzimirski and Callister, 2015). Past pregnancy experiences have been found to contribute to the non-utilisation of healthcare services by BMs in Zimbabwe and South Africa. A study done in Zimbabwe by Gore, Muza and Mukanangana (2014) established that barriers to first booking for ANC services were due to negative attitudes from the service providers. Sibiyaa, Ngxongob and Jacqueline (2018) made similar findings in a study conducted in KwaZulu-Natal (KZN), where staff attitudes towards pregnant and BMs were barriers to the utilisation of health services.

This study revealed that in rural villages, some women who give birth under the care of health professionals tend to discontinue utilising health facilities due to many factors, such as distance from the clinic, lack of knowledge about the need to do so, negative attitudes towards modern medicines arising from cultural factors and lack of autonomy in decision-making regarding the utilisation of healthcare services caused by being under the care of elders. Mothers who gave birth under the guidance of elderly women might see no need for them to seek medical services if there are no complications. Others can be prevented from seeking medical assistance due to the lack of knowledge about the types of maternal services provided by local health facilities. BMs in rural setups tend to have poor knowledge and negative attitudes influenced by culture, which subsequently affects their ability to utilise health facilities in their vicinities.

2.3.3 Elderly women

The role played by elderly women in the provision of maternal healthcare and services in rural villages of South Africa is not well documented, as evidenced by scarce literature sources. Few existing studies on the role of elderly women in maternal health overlook the importance of their knowledge and its influence on PW and BMs on the

utilisation of health facilities. A study by Siruma, Hornby and Srinivas (2014) in Eastern Cape reveals that elderly women act as birth attendants and advisers to pregnant and BMs. Similarly, a study by Jacobs, Michelo and Moshabela (2018) conducted in Zambia reports that elderly women influenced PW to initiate ANC. In agreement, Jacobs, Michelo and Moshabela (2018) state that relying on elderly women by PW caused uncertainties about the timing of the initiation of ANC. Most PW delayed starting ANC visits while waiting for confirmation of their pregnancy by an elderly woman whom they trusted. This implies that the elderly women were pivotal in recommending PW whether to attend ANC and probably advised the clinic to attend because of their knowledge based on cultural perspectives. Jacobs, Michelo and Moshabela (2018) further alleged that elderly women advised PW not to prematurely reveal the pregnancy to outsiders, but to wait until the pregnancy was visible to prevent miscarriages. In rural villages, PW put more trust in elderly women than healthcare professionals and would adhere to the advice from the elderly regardless of its consequences. Chimatiro et al., (2018) also report that in some cultural practices, the first pregnancy should be confirmed by elderly women related to the men, and the first birth should be delivered at home being supervised by elderly women, the mother, or grandmother. In African tradition, giving birth at home is a common practice encouraged by elderly women, particularly for the first pregnancy of daughters-in-law. In some cultures, predicaments in giving birth are regarded as a bad sign for the women for having committed adulterous acts during the marriage, and as a result, it is believed that elderly women can easily deal with this to prevent further complications from saving the child and mother.

A study by Sialubanje, Massar, Hamer and Ruiters (2015) in Zambia confirmed that most PW preferred birth at home due to a positive attitude towards TBAs, whom they perceived as respectful, skilled, friendly, trustworthy, and available when they needed them. Similarly, a study by Kitui, Dutton, Bester, Ndirangu, Wangai & Ngugi (2017) reveals that elderly women provided important knowledge to PW and acted as birth attendants in the absence of professional healthcare givers in the villages. However, elderly women sometimes advise PW to conceal the pregnancy until it is deemed safe

for both the mother and the foetus. Consequently, PW who depend on older women may not visit healthcare facilities for fear that healthcare workers would reveal the pregnancy to community members. Moreover, unplanned pregnancies usually result in unmarried young women being asked to leave their homes and forced to stay with relatives, particularly elderly women who would assist in the concealment of the pregnancy from troublesome parents. In most cases, the knowledge of maternal health by such elderly women is unknown, and this endangers the pregnant mother and the unborn baby.

2.3.3.1 Cultural and traditional beliefs which influenced utilisation of healthcare services

The use of herbal medicine during pregnancy, birth and after birth is a well-known traditional practice in many communities. It is based on cultural beliefs that these medicines work better than pharmaceutical ones (Karemore & Avari, 2017). The use of pharmaceutical drugs may not be recommended during pregnancy due to known or suspected problems or because very little is known about their safety. This tends to encourage the use of herbal medicines, particularly in developing countries. There is also the belief that traditional medicines are safer than clinical drugs (Karemore & Avari, 2017). Studies report the prevalence of herbal medicine use during pregnancy ranging from 12 to 82.3% in developed and developing countries (Lisha & Shantakumar, 2015; Mothupi, 2014). This reinforces the belief that herbal medicines are a good substitute for modern drugs. According to Showmen, Dune and Smith (2017), lack of access to mainstream maternity care compels African women to resort to herbal or traditional medicines for maternal and reproductive health issues. In South Africa, using herbal medicines for maternity-related health complaints is common practice in rural and urban centres, particularly among indigenous women (van der Kooi & Theobald, 2006; Mabina, Moodley & Pitsoe, 1997; Naidu, 2014). A study by Stjernberg, Berglund and Halling (2006) reports a higher prevalence of use of herbal medicines by the elderly than by younger Swedish women. The same study also concluded that more women used herbal medicine than men of the same age. A study by Agbabiaka, Wider, Watson and Goodman (2017) also concurs with the above

observation that Herbal medicine was more prevalent among older adults, particularly women and was likely to influence younger adults to follow suit. According to El Hajj and Lone Holst (2020), the major reason for using herbal medicines among PW was the belief that it was safe to do so, and it was influenced by elderly women. El Hajj and Lone Holst (2020) further note that an increase in the use of herbal medicine among PW in sub-Saharan Africa, even in areas with good healthcare facilities, indicates a serious knowledge gap in studies on herbal medicines. Similarly, John and Shantakumari (2015) posit that significant physiological changes due to pregnancy bring about symptoms such as nausea, vomiting, heartburn, and constipation that cause the affected women and their families to resort to self-medicated herbal medicines that elderly women have more knowledge about than modern medication. In many rural and township communities, traditional healers provide healthcare services based on culture, religious background, knowledge, attitudes, and beliefs prevailing among the people, particularly older adults (Ozioma & Chinwe, 2019). Herbal medicine forms the cornerstone of traditional medicine administered by traditional healers, and elderly women play an important role in facilitating such herbal medicines for pregnant and BMs (Chavunduka, 1990; Mahomoodall, 2013). Herbal medicines are easy to find at any time of the day from traditional healers and elderly women who know herbs. Getting herbals from traditional healers or other sources is always convenient. It does not need formalities than those at health facilities where patients have to register or book and might not receive appropriate respect from health workers. Herbalists and elderly women need no protocols to assist PW as they are readily available on call. Unlike in health facilities where health staff keep and access records, traditional healers and elderly women do not keep such records, and the privacy of the ailments or herbal given is secure. Patients with complications can be referred to health facilities when the herbal medicines fail to work. With so much trust in herbal medications,

It is a common practice that South African women follow the trend elsewhere in the world concerning the use of herbal medicine during pregnancy. However, there is a need to have an insight into the intricacy of herbal medicine use and the role elderly

women can play in providing new approaches to drawing a training guide. This study sought to establish how the knowledge and attitudes of pregnant affected the utilisation of existing health facilities in the rural villages of Limpopo Province. SEM assisted the study in investigating the impact of individual characteristics towards the utilisation of healthcare services that influenced behavioural change amongst PW, BMs and elderly women to improve the reduction of maternal mortality in rural villages of Limpopo Province.

2.4 PHYSICAL AND ENVIRONMENTAL FACTORS AS BARRIERS LEADING TO UNHEALTHY CHOICES

Boulton, Horne and Todd (2017) establish that an enabling physical environment is important for the provision of maternal healthcare services. The physical environment barriers that lead to unhealthy choices include poor access to health facilities due to long-distance that PW have to walk and lack of transport to take pregnant and BMs to clinics (Sialubanje, Massar, Hamer & Ruiter, 2015). Lack of physical access to healthcare facilities presents a fundamental barrier to PW and BMs receiving care in rural areas (Gore, Muza and Mukanangana, 2014; Akinyinka, Olatona and Oluwole, 2016). In rural areas, most of the healthcare services are centralised due to a lack of resources, and this causes poor patients to walk very long distances to get medical assistance at the facilities. Due to poor roads, some parts of rural areas are inaccessible during the rainy season, particularly when roads are damaged and rivers are full for healthcare givers to drive to those affected areas. PW in such affected areas tend to compromise their health by choosing to stay at home instead of enduring walking long distances (Abdulraheem, Olapipo & Amodu, 2012). According to Kaswa, Rupesinghe, and Longo-Mbenza (2018), poor facilities in rural areas mean that women would have to travel long distances and queue to access healthcare workers are discouraged from attending ANC clinics. A study by Nigatu, Gebremariam and Abera (2014) in Ethiopia reports that poor attendance to antenatal was significantly associated with long-distance to healthcare services that PW had to walk regularly until birth.

Despite the widespread availability of free ANC services, most women in rural South Africa attend their first antenatal clinic late in pregnancy and fail to return for any follow-up care, potentially leading to avoidable perinatal and maternal complications (Myer & Harrison, 2010; Sialubanje et al., 2015). Disparities characterise most South African rural areas in healthcare due to the inaccessibility and unavailability of healthcare facilities and poor road infrastructure to facilitate access and utilisation of ANC by pregnant and breastfeeding women (Arthur, 2012). This implies that extra physical, financial, and social risks of long journeys to the clinics through bad roads prevented pregnant and breastfeeding women and their families from seeking healthcare in rural communities (Finlayso, 2013). For example, inaccessible poor health facilities in densely populated KZN with high birth rates contributed to high maternal deaths in the province (Amnesty International, 2014).

2.5 INSTITUTIONAL FACTORS THAT CONTRIBUTE TO MATERNAL MORTALITY- ATTITUDE OF HEALTHCARE PROFESSIONALS

Good health requires that women and children can access quality services from the conception stage to childbirth and the postnatal period (Lassi, Kumar & Bhutta, 2016). However, institutional factors' impact on the utilisation of health services and their contribution to maternal mortality is well-documented. For example, a study by Mubyazi (2015) argues that various contextual factors, including social-cultural barriers, such as social stigma against unwanted pregnancies and negative attitudes shown by frontline health workers toward PW and BMs, contribute to delay or hinder target service users from initiating visits to clinics or maintain their attendance according to the scheduled. This section explores the effects of institutional factors such as staff attitudes, clinic waiting periods, lack of equipment in health facilities, and cultural factors towards maternal mortality in rural areas.

2.5.1 Staff attitude and abuse of pregnant women at health facilities

There is a growing concern over the impact of disrespectful and abusive attitudes and behaviours by healthcare staff caregivers towards PW and their families, which suggests a further barrier to accessing care (Bohren, 2015; Bowser, 2010). A USAID-Traction Project (2010) study on abuse of PW and BMs in the healthcare setting concludes that the heavy workload, long hours, inadequate equipment or facilities, and personal danger always demoralise and traumatise healthcare staff and lead them to take their frustrations out on patients. Some studies report poor treatment of PW in maternity facilities by medical staff, including rudeness, arbitrary acts of unkindness, clinical neglect, verbal abuse, psychological abuse, physical assault, and sexual violence (Jewkes, Abrahams & Mvo, 1998; Kruger & Schoombee, 2010; Mathole, Lembani, Jackson, Zarowsky, Bijlmakers & Sanders, 2018). News of such poor treatment of patients spreads quickly in rural communities and tends to create wrong perceptions and attitudes towards the utilisation of health facilities in rural areas (Warri and George, 2020). For example, a study by Kruger and Schoombee (2010) reports that women who visited community-based maternity care facilities found that many women expressed expectations of being shouted at, manhandled or neglected. This further created negative attitudes towards the utilisation of community health services. From the perspective of community members, including women, elders, and traditional birth attendants (TBAs), negative facility attendant attitudes and behaviour, and hostile facility environments are viewed as strong deterrents to high-quality care and uptake of facility-based services (Dodzo & Mhloyi, 2017; Warri & George, 2020).

Klopper, Coetzee, Pretorius and Bester (2012) posit that the staff-patient relationship and the quality of care provided by health facilities are influenced by healthcare workers' occupational stressors due to physical, social and psychological factors in the work environment. These cause maternal healthcare providers to behave unethically towards PW during labour and postpartum.

Poorly paid health staff lack the motivation to conduct their duties professionally and instead show negative attitudes towards patients they are supposed to assist. The USAID Maternal Health Vision for Action (2015) observes that maternity patients who sought care in public health facilities in Eastern Cape faced a range of abuses by health workers and substandard care that put them and their newborns at high risk of death or injury. Mathole et al., (2018) report nurses' abuse of authority by physically and verbally abusing, and turning away PW from clinics without examination, particularly those in labour.

Due to failures in accountability by healthcare staff, women seeking maternity care do not have accessible and easily comprehensible effective ways to lodge complaints about mistreatment suffered while accessing health services and getting redress (USAID, 2015; Downe, Finlayson, Tunçalp & Gülmezoglu, 2016). Amnesty International (2014) also cites a lack of privacy and patient confidentiality at clinics, particularly concerning HIV testing, as a reason for PW to seek help at healthcare services. A report by Polity (2020) alleges that the biggest problem faced by women in South Africa is the attitude towards service by health practitioners which has caused many people to lose confidence in the health staff because of the mistreatment patients receive. Gore, Muza and Mukanangana (2014) also found that negative attitudes from the health staff in various health facilities across Zimbabwe were barriers to first booking for ANC services by PW. This was further confirmed by Sibiya, Ngxongob and Jacqueline's (2018) study in KZN that the negative attitude of staff towards PW in rural areas was a crucial factor that discouraged the early initiation of ANC. These findings show that bad experience with the healthcare system by a few women who used the facilities was shared with other women and influenced them in deciding whether to seek care from such facilities. This further signifies the importance of the family and community in maternal healthcare by sharing information about health facilities.

2.5.2 Distances travelled to the healthcare facility

Studies show that the distance between health facilities and rural communities that pregnant must travel impacts the utilisation and uptake of health services, including SBAs, specialised obstetric care and deliveries in facilities (Kumar, Dansereau & Murray, 2014; Goldenberg, McClure, 2015; Cameron, Suarez & Cornwell, 2019). Nicholl, West, Goodacre and Turner (2017) conclude that increased travelling distance to healthcare facilities was associated with increased mortality risk among patients. Maternal mortality was also strongly associated with distance, as mortality increased with distance from the nearest health facility (Hanson, Cox, Mbaruku, Manzi, Gabrysch, Schellenberg, Tanner, Ronsmans & Schellenberg, 2015). The literature widely reports healthcare service location as a barrier to healthcare facility utilisation among PW who were either unwilling or unable to cover long distances or poor bad terrain to access health services (Kyei-Nimakoh, Carolan-Olah & McCann, 2017). This is in line with a study by Gabrysch, Cousens, Cox and Campbell (2011) in Zambia which shows that financially poor women travelled long distances to reach health facilities, but this acted as a barrier to other women who had physical challenges. In some cases, the physical distance between health facilities and patient residences was used as an excuse even by those close to the facilities (Kyei-Nimakoh, Carolan-Olah & McCann, 2017; Nieburg, 2012). Amnesty International (2014), persistent problems linked to the availability and costs of transport to healthcare facilities were prevalent among rural people in South Africa, forcing them not to visit health facilities unless there were in a life-threatening situation.

2.5.3 Long waiting period at healthcare facilities

The influence of time spent waiting to get service at healthcare services by different patients is well documented. Literature shows that some patients were discouraged from seeking medical care from rural clinics due to delays in service provision. Independent studies by Gerein, Green and Pearson (2006) and Downe (2016) report that increased waiting times at healthcare facilities reduce patient satisfaction leading to decreased utilisation and times the delays resulted in death, illness or disability for

mother and infant in the case of an obstetric emergency. In addition, there are reports of poor staff knowledge and skills, poor referral practices and poor staff interpersonal relationships that led patients to waste time at the health facilities or unnecessarily travel to other referrals (Kyei-Nimakoh, Carolan-Olah & McCann, 2017; Gabrysch, Cousens, Cox & Campbell, 2011). Some studies apportion delays in service provision to overcrowding of patients caused by the lack of proper appointment systems and the random arrivals of women for maternal care in rural health facilities (Fantaye et al., 2019; Warri and George, 2020). Confronted with the situation, medical staff found it difficult to expeditiously attend to PW and BMs.

In some related cases, delays in service provision were caused by nurses who ignored PW seeking assistance when in labour but were forced to wait for hours or days to get appropriate care (USAID, 2015; Bowser & Hill, 2016). There are also reports that PW were allegedly accused of lying about being in labour and punished for that and consequently ended up with miscarriages (USAID, 2015). Moreover, reports reveal that PW were directed to make their beds and walk and carry their newborns between wards despite being weak after giving birth, left unattended for hours after delivery, and not told about issues central to their obstetric care (USAID, 2015; Editorial, 2015; Jewkes, Abrahams & Mvo, 1998; Hastings-Tolsmaa, Nolte and Temane, 2017). A study in Ghana by Donkor and Obed (2013) found that PW and BMs expressed dissatisfaction over time spent waiting to receive service at a health facility. Women perceived the waiting time as too long and discouraging, considering the distance and the cost of services. Additionally, in some rural areas, health facilities are characterised by overcrowded conditions and unnecessary movements between the consultation rooms, laboratory, ultrasound room, and pharmacy, which are usually far from each other (Warri & George, 2020). All this amounted to poor services, which discouraged the utilisation of healthcare services.

2.5.4 Availability of health staff, equipment and other resources

A WHO (2016) report stated that poor women in remote areas, particularly in sub-Saharan Africa and South Asia, were least likely to receive quality patient care due to low numbers of skilled health workers. The lack of local health facilities was another factor that can be experienced and identified as a major barrier by multiple stakeholders in a rural community in sub-Saharan Africa (Fantaye et al., 2019). A study by Cameron, Suarez and Cornwell (2019) indicates that maternal death was not associated with distance to a health centre but with the medical staff available at the healthcare facility. According to Cameron, Suarez and Cornwell (2019), an additional doctor at the health centre was most likely to reduce the probability of maternal death by 3.2%, while the number of MW working in community healthcare had the likelihood of reducing maternal death by 4.8%. These findings indicate that the presence of many MW in the community healthcare centres improved access to health assistance for PW before complications arose.

Similarly, in hospitals, PW believed there were likely to get assistance quickly because there were more medical doctors to deal with complications. Hanson, Cox and Mbaruku (2015) also report that distance to hospitals or clinics was likely to play an important part in maternal mortality even if quality patient care was high and not low. This implies that the quality of maternal healthcare was determined by the availability of drugs, equipment and well-trained or skilled healthcare staff (Garenne, 2015; Garenne, Kahn, Collinson, Gómez-Olive & Tollman, 2013). Furthermore, Gerein, Green and Pearson (2006) indicated that the availability of skilled health professionals, especially MW, nurses, doctors and obstetricians, is critical in ensuring high-quality antenatal, delivery, emergency obstetric and postnatal care services. However, the problem which persisted was getting PW to these facilities for assistance. USAID (2015) insisted that women's lack of agency to utilise health services contributes to unnecessary maternal death and suffering.

Amnesty International (2014) also found that several clinics visited used processes for PW and girls living with HIV that disclose their status, including separate queues for antiretroviral medication, different coloured antenatal files, and different appointment days. According to Ganle, Parker, Fitzpatrick and Otupiri (2014), the ability of PW to utilise health facilities was affected by accessibility issues such as long distances and inconvenience of getting to clinics and finding deserted, costs of services and transportation, and unavailability of suitable transportation options to health facilities. Amnesty International (2014) also argues that lack of information about sexual and reproductive health and rights, including lack of patient-friendly services, were preventive factors to healthcare services in rural South Africa.

USAID (2015) states that the South African healthcare system faces several challenges that impact maternal healthcare. Commonly cited challenges include maladministration and financial management, resulting in many inefficiencies in maternal healthcare delivery in many provinces. The ultimate outcomes of some of these inefficiencies were a lack of medical supplies and equipment, poor quality of care, and lack of accountability of health professionals and public administrators that continuously impact maternal care by increasing demand for health services and indirectly causing maternal deaths. For example, a study by Gerein, Green and Pearson (2006) in Tanzania concluded that the availability of qualified staff was a profound determinant of the utilisation of emergency obstetric care together with factors such as staff motivation, availability of equipment and drugs, and management capacity. Similar studies conducted in rural areas in some parts of Africa report that healthcare facilities inadequately handled the obstetric needs of patients to reduce maternal mortality (Gunawardena, Bishwajit & Yaya, 2018).

Similarly, Chimatiro et al., (2018) report that the understaffing of ANC clinics resulted in most of the women who sought medical attention not being attended to on time, forcing others to prefer health advice from home and never returning to the clinics. The other consequences of the unavailability of staff and shortage of equipment reducing the abilities of nurses to closely monitor the condition of acutely ill patients and failure to react quickly to emergencies resulted in higher maternal mortality (Gerein, Green &

Pearson, 2006; Fantaye et al., 2019; Kyei-Nimakoh, Carolan-Olah & McCann, 2017). This is also confirmed by Stenberg, Axelson, Sheehan, Anderson and Gülmezoglu (2013), who posit that some women prefer to deliver in the community without skilled assistance because of fear of financial costs, low quality of care in health facilities and disrespectful treatment.

2.5.5 Social and cultural beliefs

To provide sound solutions and intervention strategies to alleviate high maternal mortality among rural women, it is essential to understand social and cultural issues influencing PW and BMs regarding the care behaviours of their population or communities (Sibiyaa, Ngxongob & Jacqueline, 2018). In rural villages, people of various ethnic backgrounds are influenced by social and cultural views and beliefs (Salihu, Wilson, King, Marty & Whiteman, 2015). According to Hunt and De Mesquita (2007), much effort is needed to overcome women's political, economic, social and cultural barriers to accessing the interventions used to prevent maternal mortality. A study by Chimatiro et al., (2018) reports that non-attendance to ANC during the first trimester was associated with cultural practices such as fear of witchcraft and social problems, such as the need for material support from family members when travelling long distances to the health facilities. A similar finding was made by Sibiyaa, Ngxongob and Jacqueline (2018) in KZN, who report that several social and cultural issues influenced PW to seek healthcare services from local facilities, for example, Sangoma and traditional healers. The prevalent factors appeared to be traditional beliefs and cultural norms connected with ANC attendance; lack of awareness among PW on the importance of ANC; peer and community influence on ANC attendance, and the authorisation of PW by parents and the community to seek medical attention (Sibiyaa, Ngxongob and Jacqueline, 2018). This confirms that in most rural areas, maternal mortality is not due only to medical conditions but to cultural beliefs and practices which prevent PW from utilising the healthcare facilities (Morgan, Tetui, Muhumuza-Kananura, Ekirapa-Kiracho & George, 2017). A study by Downe, Finlayson, Tuncalp and Gulmezoglu (2016) further confirm that poor women in high-

income countries were reluctant to attend central clinics for ANC due to fear of exposing their pregnancies and likely consequential social disgrace, especially for teenage mothers and unplanned pregnancies. According to Chimatiro, Hajison, Chipeta and Muula (2018), traditional beliefs and cultural practices affected the timing of ANC mostly among rural women compared to those in urban centres.

The fact that social and cultural beliefs influence PW decision towards healthcare implies that increased awareness of maternal healthcare among women is required for them to make an informed decision about pregnancy and maternal and child health (Sibiyaa, Ngxongob & Jacqueline, 2018). In rural areas, most women adhere to cultural beliefs to keep their pregnancy a secret until it is visible and apparent to all people. As a result, such women tend to delay seeking healthcare services until later when the pregnancy is recognised by the community and have complications and possibly seek assistance from traditional healers. This prevents the early identification of problems during ANC. Consequently, Agus, Horiuchi and Porter (2012) propose that understanding the local culture's barriers is important in improving women's awareness of their pregnancy.

Similarly, Downe, Finlayson, Tunçalp and Gülmezoglu (2016) posit that pregnancy is seen as a healthy physical state and socially risky in some countries. Therefore, the consequences of announcing a pregnancy could be the risk of being subject to the evil eye of jealous neighbours (Finlayson, 2013). Finlayson (2013) states that the reluctance to attend healthcare services by some women could be because everything was well and they felt there was no need to do so, or attending an ANC had the potential of revealing their pregnancy and risks spiritual damage caused by jealous neighbours or family members. Warri and George (2020) also allude to fear of bewitchment and stigma due to cultural beliefs about the early initiation of ANC may influence late initiation.

According to the SEM, institutional factors such as socio-cultural norms, traditional practices, factors associated with poverty, and religious and spiritual beliefs can influence maternal healthcare-seeking behaviour of prenatal and postnatal women

(Shahabuddin, Delvaux, Nöstlinger, Sarker, Delamou, Bardajó, Broerse & De Brouwere, 2017). Mothers from poor communities are more likely to die from pregnancy, during or after delivery, because they are less likely to access resources due to economic constraints. (Ashley, 2019; Shahabuddin, Nöstlinger, Delvaux, Sarker, Delamou, Bardají, Broerse, De Brouwere, Zimmermann, Dompeling, Kramer, Maassen, Spaanderman & Vreugdenhil, 2017). A study by Ashley (2019) used the SEM to study the effects of sociocultural factors on maternal healthcare behaviour among American PW from the middle and low-income band and found that sociocultural factors had different effects among the women from these two income groups. In this study, the SEM will be used to determine how institutional factors, including sociocultural factors in the selected study units, influence PW to seek maternal help from health facilities in their communities. This will further establish the trends in health-seeking behaviours of PW from different socio-cultural including cultural beliefs, income and social status. In addition, the SEM can facilitate the researcher to apply qualitative and quantitative methods in collecting research data from the participants and respondents.

2.6 THE INFLUENCE OF FAMILY AND COMMUNITY MEMBERS TOWARDS THE USE OF HEALTHCARE SERVICES AND INDIGENOUS KNOWLEDGE

2.6.1 Family and community

With regard to family influence, USAID (2015) purports that women lack decision-making authority and have no control over or access to the financial resources needed to pay for transportation and direct or incidental fees for maternal services. There are also reports of a lack of support by spouses who refuse to pay for the cost of antenatal services, even discouraging early initiation of ANC, and PW waiting for their spouses to decide when to start attending the clinic and which clinic to attend (Warri & George, 2020). This shows how ignorant spouses were of the importance of early ANC and maternal healthcare. Warri and George (2020) claim total lack of effective community

health programmes and support from parents and spouses in rural villages that address problems related to complications that professional nurses cannot address led to late ANC initiation. For example, some PW reported having delayed or avoided the initiation of ANC out of shame and fear of being mocked by community members for initiating ANC too early (Warri & George, 2020). In addition, young single women with unplanned pregnancies were disclosed late to their parents due to fear of potentially negative reactions (Tebeu, Halle-Ekane, Itambi, Mbu, Mawamba & Fomulu, 2015; Njim, 2016). This demonstrates a lack of parental, family, and community support towards women with unwanted pregnancies or infancies, ultimately leading to a lack of utilisation of existing facilities. According to Holmes and Goldstein (2012), the support provided by family members, friends and community volunteers, elders, traditional MW and skilled birth attendants with shared care during antenatal, delivery and postnatal care was important in successfully utilising healthcare facilities by pregnant and breastfeeding women.

According to Sibiyaa, Ngxongob and Jacqueline (2018), the family and community showed their importance in the uptake of healthcare services to improve pregnancy, maternal and child healthcare by sharing vital information. Therefore, intervention strategies are required to encourage all women to disclose pregnancies as early as possible to assist them before complications develop. Generally, young women trust elders when faced with problems due to the latter's influence in the communities.

2.6.2 Elders

According to Fantaye, Okonofua, Ntoimo and Yaya (2019), respect for elders, approval by elders, and adherence to elders' advice is traditionally considered important in rural communities. In many rural African communities, elders are the main opinion leaders and primary decision-makers, exerting the most influence on the daily life of community members, including PW and BMs. In the context of maternal health, such stature at the community, household and even individual level enables elders to hold

traditionally sanctioned influence over care-seeking women and their decisions from family planning to puerperium period.

In many rural communities, decisions on maternity care are largely within the traditional view of elderly women as leaders in the household or even the local community (Sussan, Olujide & Ebere, 2014; Fawole & Adeoye, 2015). This indicates that community perceptions about health programmes and health services affect the utilisation of healthcare facilities (Lucas & Gilles, 2010; Green, 2016). Therefore, the views and beliefs of elders, especially elderly women, can critically influence whether women seek and utilise healthcare services to improve maternal healthcare. Therefore, a critical analysis of the perspectives and beliefs of elderly women's influence on maternal healthcare in rural villages can influence maternal health strategies to assist in lowering maternal mortality.

Fantaye et al., (2019) suggest that opinions, views and beliefs about maternal health by elders from a community could be a vital source of information to inform policy and intervention strategies aiming to increase uptake of facility-based maternal care and hence reduce maternal mortality in rural areas. The fact that elderly women have a substantial influence on reproductive health decisions in households and communities, it is important for interventional efforts to acknowledge and take into account these women, particularly in rural communities where traditional age-based and gender-based hierarchies exist (Sibiyaa, Ngxongob & Jacqueline, 2018; Sussan, Olujide & Ebere, 2014; Fantaye et al., 2019). The purpose of actively involving elderly women in the planning, designing, and implementing community-based intervention strategies to curb maternal mortality in rural areas increases the probability of acceptance of the intervention strategies and their adherence by PW and BMs. Elderly women are stakeholders with the potential to influence PW and BMs behaviour in health-seeking. Therefore, their perceptions can play a vital role in facilitating the uptake of facility-based care from ANC to postnatal care (Yarzever & Said, 2013).

Research studies that utilised the SEM report show that the family and community can be essential in addressing maternal mortality (Ashley, 2019; Shahabuddin, 2017). The role of the community, including community health workers (CHWs), elderly women and neighbours, can influence the maternal healthcare-seeking behaviour of prenatal and postnatal women (Shahabuddin et al., 2017; Timmermans et al., 2020). A study by Shahabuddin et al. (2017), which utilised the SEM, reports a reduction in maternal mortality among pregnant adolescent girls who received home-based ANC through CHWs. Several studies utilised the SEM to understand the influence of family and community factors that results in maternal mortality or reduce maternal mortality in local rural communities (Timmermans et al., 2020; Kaiser, Fong, Hamer, Biemba, Ngoma, Tusing & Scott, 2020). For example, a study by Kaiser et al., (2020) successfully used the SEM to collect data from focus groups on the influence of community and interpersonal factors on healthcare behaviours among Zambian PW. By using the SEM, the researcher could be able to establish the influence of the communities, such as professional networks, neighbourhoods, community attitudes, and the relationship among different institutions within communities on maternal mortality and how it could be reduced (Newes-Adeyi, Helitzer, Caulfield & Bronner, 2000; Cassel, 2010).

2.7 PRACTICES AND MEASURES IN PLACE TO REDUCE MATERNAL MORTALITY AMONG PREGNANT WOMEN

Reducing maternal mortality in South Africa depends mainly on skilled care services provided before conception, during pregnancy and postpartum (Moodley, Fawcus & Pattinson, 2018). This requires PW and BMs to have several antenatal and postnatal care visits so that skilled health workers can attend to them. Unfortunately, in South Africa and other developing countries, PW and BMs, especially deep in rural villages, cannot have access to reproductive healthcare services due to poverty, long distances to facilities, lack of education, cultural and religious practices, long waiting times, and inadequate and poor quality services (WHO, 2016; Ganchimeg, Ota, Morisaki, Laopaiboon, Lumbiganon, Zhang, Yamdamsuren, Temmerman, Say, Tunçalp, Vogel,

Souza & Mori, 2014). In addition, a study by Zamawe, Masache and Dube (2015) found that a lack of knowledge of postnatal care and long waiting time for service in clinics are key barriers to postnatal care.

According to Downe (2016), several existing ANC programmes are subject to some of the factors seen as barriers that prevent PW and BMs from attending healthcare services in their communities. Moodley, Fawcus and Pattinson (2018) posit that the key requirements to reduce maternal mortality in each country depend on the existing context in which the problem exists. This implies that strategies to reduce maternal mortality used in high-income areas, such as urban areas, might not be effective in rural areas unless fundamental issues such as education, gender equity, poverty, health system and quality of care are put in place, to address challenges faced by PW and BMs. Gebhardt, Pattinson and Hofmeyr (2016) suggest the need to concentrate on training and creating mechanisms for women to be easily referred to healthcare facilities for services.

Much of South Africa's effort to reduce maternal mortality has been based on straightforward schemes that focus on hospital care thought to be ideal for preventing PW from dying (De Brouwere, 2017). Healthcare services manage most intervention strategies for preventing maternal deaths. According to De Brouwere (2017), the currently used strategies ignore maternal deaths due to various shortcomings and a lack of resources that depend on factors beyond the healthcare system. Prata, Passano, Sreenivas and Gerdt (2010) suggest five healthcare service-based priority intervention strategies to reduce maternal mortality: family planning, prevention of sexually transmitted infections and HIV infection, comprehensive abortion care, and ANC and postpartum care. According to Prata, Passano, Sreenivas and Elisabeth Gerdt (2010), most intervention strategies currently used are aimed at treating the five primary obstetric causes of maternal death: haemorrhage, hypertensive disorders in pregnancy, puerperal sepsis, unsafe abortion, and prolonged/obstructed labour.

2.7.1 Family planning

Family planning programmes provide women with correct information, counselling and a range of temporary and permanent contraceptive methods (Sedgh, Hussain, Bankole & Singh, 2007; Moodley, Fawcus & Pattinson, 2018). Safe use of family planning reduces maternal mortality by preventing women from getting pregnant, thereby eliminating the risks of unwanted pregnancy and mortality related to pregnancy (Passano, Sreenivas & Gerdt, 2010). Women with good knowledge of family planning are likely to use contraceptives properly and prevent unnecessary problems in which untrained personnel would get rid of unwanted pregnancies. However, in some cultures, women are discouraged from using family planning contraceptives, which leads to women and girls doing it without the knowledge of their husbands or partners. Despite the important role of elderly women in the communities, they are left out of most family planning programmes.

2.7.2 Prevention of sexually transmitted infections and HIV infection

The literature shows that STIs and HIV/AIDS contribute significantly to maternal mortality. Therefore, there is a need to prevent transmission, particularly from mother to child (PMTCT) (Prata et al., 2010). PW with HIV/AIDS usually get ill and die before or after giving birth. Therefore, strategies that increase knowledge and reduce risk-taking behaviour, voluntary HIV counselling and testing, antiretroviral treatment and referrals to sexual/reproductive health services and STI treatment are important (Hastings-Tolsmaa Nolte & Temane, 2017; Prata et al., 2010). In South Africa, every pregnant woman who attends healthcare services is tested for HIV and initiated if tested positive and other STI" s measures are taken to treat the woman (Moodley, Fawcus & Pattinson, 2018). However, with many PW either starting ANC late or coming to the health facility when there are complications, the purpose of the programme is defeated.

2.7.3 Safe abortion care

Abortion refers to the termination of pregnancy safely or unsafely. Safe abortion is done by healthcare professionals following proper medical procedures, while unsafe abortion is done by unprofessional persons who ignore medical practices resulting in complications and even death (Lohr, Hayes & Gemzell-Danielsson, 2008). Safe abortion prevents the possibility of injury or death owing to unsafe abortion and eliminates the chance of a woman dying from any other direct causes related to pregnancy (Guttmacher Institute, 2009). According to Grimes, Benson, Singh et al. (2006), abortion-related maternal mortality is usually low in areas where safe abortion is easily available. However, unsafe abortion is critical in underage people who want to conceal pregnancy because of the sanctions they face from relatives or the community (Benson, Nicholson, Gaffikin & Kinoti, 1996). In South Africa, since February 1997, every woman of any age is legally entitled to a safe abortion with no reasons given if she is less than 13 weeks gestation covered by the Choice on Termination of Pregnancy Act (Williams, 2019). Benson, Nicholson, Gaffikin and Kinoti (1996) affirm that it is difficult to attain a safe abortion in rural villages due to cultural, community, and family influences and a lack of healthcare staff to render good services and advice. In some cases, PW resort to concoctions from elderly women and Sangomas, leading to pregnancy complications or death (Hodes, 2016). In South Africa, abortion is privately sanctioned because of the bad publicity from political authorities, healthcare workers and family members.

Many rural societies perceive abortion as a moral transgression, even if it benefits public health and is sanctioned legally (Hodes, 2016). Although the Choice on Termination of Pregnancy Act has reduced maternal mortality and morbidity due to safe abortion, illegal abortion remains popular in South Africa. Unsafe abortions are proportionally high in South Africa because women continue to terminate unwanted pregnancies using unsafe methods in fear of the community (Hodes, 2016). A study by Favier, Greenberg and Stevens (2018) reports that urban women had better knowledge of the rights of abortion and how to find services, legal and illegal medical

abortions, and having closer proximity to abortion services. In rural areas, safe abortions were difficult because women were afraid of being stigmatised by the community and healthcare providers for seeking safe abortion services (Gerdt, Raifman, Daskilewicz, Momberg, Roberts & Harries, 2017). A study in Cape Town by Gerdt et al., (2017) concluded that women performed informal sector abortions for privacy and fear of mistreatment and stigma in health facilities. Although women and girls have the option to abort, the lack of knowledge and facilities to do so remains a dilemma for those in rural areas. Instead, the use of indigenous knowledge from elderly women is misused by PW.

2.7.4 Antenatal care

Most of the studies on the reduction of maternal mortality focus much on ANC aimed at detecting and managing conditions during pregnancy that have the potential to lead to adverse maternal outcomes (Grimes, Schulz, van Vliet & Stanwood, 2003; Birmeta, Kaswa, Rupesinghe, Longo-Mbenza, 2018; Gore, Muza & Mukanangana, 2014). The studies show that the prevention of maternal death depends on detecting hypertension, proteinuria, STIs and HIV, anaemia, and foetal malpresentation. Therefore, the studies suggest that PW and their families should be educated so that they recognise and respond appropriately to danger signs during pregnancy (Carroli, Rooney & Villar, 2001; Dibaba & Woldeyohannes, 2013; Nigatu, Gebremariam & Abera, 2014; Moodley, Fawcus & Pattinson, 2018). In addition, healthcare should focus on responding to emergency and comprehensive obstetric emergency care, management of antepartum haemorrhage, puerperal sepsis, eclampsia, obstructed/prolonged labour and postpartum haemorrhage (Passano et al., 2010). However, this can be possible only if PW and BMs regularly visit healthcare facilities or if there are better community-based initiatives.

2.7.5 Postpartum care

According to Passano et al. (2010), postpartum care refers to a collection of intervention strategies put in place to reduce maternal mortality and morbidity. Such

strategies include: 1) early detection and management of obstetric complications immediately after delivery; 2) education and provision of contraception for birth-spacing or limiting; 3) counselling and support for BMs; 4) voluntary counselling and testing for HIV; 6) advice and recommendations regarding postnatal nutrition; 7) information about self-care/hygiene; 8) tetanus toxoid immunizations; and 9) social and psychological support (WHO, 1988; 2016; Passano et al., 2010; Moodley, Fawcus & Pattinson, 2018). However, these intervention strategies are effective with women who visit healthcare services, particularly in urban centres where there are good services and not effective in rural areas where there are poor services (Moodley, Fawcus & Pattinson, 2018; Passano et al., 2010).

According to Hunt and De Mesquita (2007), approximately 74% of maternal deaths can be averted by giving women access to effective intervention strategies for preventing or treating pregnancy and birth complications. However, poverty, gender and other inequalities, a lack of information, a weak health system, a lack of political commitment, and cultural barriers continue to manifest as the major obstacles that have to be overcome for women to access healthcare services and correct information that can assist prevent maternal mortality and morbidity (Passano et al., 2010; WHO, 2016; Hunt & De Mesquita, 2007; Pilane & Malan, 2018).

2.7.6 Community-based strategies

Although many strategies to reduce maternal mortality work with women in urban areas, they seem to have limited effect on rural women under the influence of the family and community and lack knowledge about new developments (Downe, 2016; Passano et al., 2010). Some studies advocate that intervention methods in maternal health should embrace ideas from communities, stakeholders, and other social groups dealing with PW to improve maternal health in rural communities (WHO, 2016; De Mesquita, 2007). Community-based care is a vital component of providing a continuum of care to poor communities (Lassi, Kumar & Bhutta, 2016). Similarly, Souza, Gulmezoglu, Vogel, Carroli, Lumbiganon and Qureshi (2013) suggest that interventions need to be integrated into strategic programs because no single strategy

will be adequate in all regions and all sub-populations. Some studies also suggest that partnerships should be formed with participative women's groups when designing intervention strategies to solve problems faced by women (Catling, 2015; Prost, 2013). This study seeks to develop a training programme that elderly women could use to assist PW in their communities. This is intended to improve the reduction of maternal mortality in rural villages in the Limpopo Provinces.

USAID (2015) suggests that improving maternal health strengthens individual women, families, and communities. The improvement of equity of access and use of health services by women and girls from the most vulnerable villages could be achieved by addressing the key drivers of inequity so that women and girls can benefit from increased access to quality services, goods, and information alongside the removal of barriers against PW.

Addressing maternal mortality requires intervention strategies cutting across the spectrum of maternal healthcare (preconception, antenatal, intrapartum, immediate postnatal period, and after) and integrating various stakeholders in the health system, such as family and community level, outreach, and clinical care and facility level (Gülmezoglu, Lawrie, Hezelgrave, Oladapo, Souza, Gielen, Lawn, Rajiv Bahl, Althabe, Colaci & Hofmeyr, 2016). Most maternal deaths in rural villages occur due to pregnancy complications before, during and after labour; thus, community-based strategies are important to mitigate mortality. In rural community settings, women cannot access assisted delivery at healthcare facilities due to physical barriers, an inability to challenge existing social norms (delivering alone or with TBAs), and a lack of infrastructure (roads, transportation, and health facilities) (Gülmezoglu et al., 2016). This requires elderly women to actively provide assistance while waiting for professional assistance. To do this, elderly women must be trained in safe maternal health.

Studies in Asia on community-based programmes with pregnancy and postnatal home visits reveal increased reductions in maternal and neonatal mortality (Baqui, El-Arifteen

& Darmstadt et al., 2009; Kumar, Mohanty, Kumar et al., 2008; Day, Gray & Budgell, 2011; Daviaud, Nkonki, Ijumba, Doherty, Lawn, Owen, Jackson & Tomlinson, 2017). A similar study in Bangladesh by Lefevre, Shillcutt and Waters (2013) concluded that home visits intervention strategy with pregnancy and postnatal care was cost-effective in reducing neonatal mortality, whilst a community intervention with health education and no home visits was not. These findings show that home visits by healthcare staff effectively address maternal challenges because of the professional support rendered to the community. On the contrary, community intervention with health education alone was ineffective in these communities due to fundamental issues that must be addressed. For example, health education that excludes elders and traditional leaders, the custodian of culture and traditional beliefs, might not be an appropriate solution in many rural villages where these practices are inherent.

Guta, Risenga, Moleki and Alemu (2018) identify three types of community-based care: the provision of home- and/or community-level skilled care, linkages of health services and community participation, and mobilisation. According to Gupta et al. (2018), the *provision of home and/or community-level* skilled care involves available interventions where and when they are most needed, with the main purpose of saving lives in maternal and newborn care being provided in communities using available resources and is cost-effective. *Linkages of health services* is a setup in which community-based care enables maternal and newborn care to be connected with skill-based assistants (SBAs) and other persons in their community who are responsible for rendering care for obstetric and neonatal complications to save the lives of mothers and newborn babies at home before referral to appropriately equipped health facilities (Gupta et al., 2018; Sengane, 2013). In this context, community-based care prevents maternal and newborn mortality at home and/or community level using local skilled healthcare provided by the community, for the community, with linkages to health facilities to avoid all forms of delay (Gupta et al., 2018; Mnisi, Peu & Meyer, 2012). Lastly, community participation and mobilisation involve community members assessing their own health needs and developing and monitoring their solutions to identified problems (Guta, 2016; Gupta et al., 2018; Mnisi, Peu & Meyer, 2012). This

form of community-based care requires much commitment and community participation to address the problems. This can be extended to maternal and newborn care services in which community members assist each other by providing the services and identifying SBAs in their communities (Guta, 2016).

Community-based maternal and neonatal interventions involving home visits by healthcare staff are hardly provided in South African rural villages because of the complexities in the paradigm (Guta, Risenga, Moleki & Alemu, 2018). Instead, the DoH encourages WBOTs (Naidoo, Railton, Jobson, Matlakala, Marincowitz, McIntyre, Struthers & Peters, 2018). Community-based interventions can encourage effective health practices and care-seeking among communities and families (Lassi, Kumar & Bhutta, 2016). Some advantages of community-based interventions could involve recruiting and training local community members willing to work alongside trained healthcare professionals and community member involvement in service provision, including diagnosis, treatment, and referral (Lassi, Kumar & Bhutta, 2016).

2.7.7 Ward-based outreach teams

According to Naidoo et al. (2018), WBOTs have gained importance as part of primary healthcare in resource-constrained rural settings across the globe. To improve communities' access to health services and the quality of care provided, the DoH introduced WBOTs in South Africa in 2012 as part of the PHC programme (Naidoo et al., 2018). In the South African context, WBOTs should be linked to a PHC facility and be composed of a team leader, mainly a professional nurse, and five or more CHWs. A single CHW should be allocated to 250–400 households to support healthcare services (Naidoo et al., 2018; Motau, 2014). The South African government was inspired by the success of the Brazilian WBOTs model, and this led to the PHC re-engineering strategy in 2011 (Assegaai, Reagon & Schneider, 2018; National Department of Health [NDoH], 2011). The main purpose of the WBOTs was to bridge the gap between health facilities and the communities they serve, primarily in rural areas with impoverished and under-served communities where individuals have to

travel excessive distances to seek medical care (Motau 2014; Khuzwayo & Moshabela 2017; Assegaai, Reagon & Schneider, 2018). According to Assegaai and Schneider (2017), the WBOTs strategy is intended to strengthen health prevention and promotion, identifying high-risk individuals and families by building links between households and healthcare facilities. This included PW, who needed maternal care to avoid unnecessary complications. In theory, the WBOTs were to engage with district health forums to elicit community views on access to and quality of maternity care (National Committee for Confidential Enquiry into Maternal Deaths, 2014; Saving Mothers Report, 2014). The WBOTs were to convey essential maternity and baby care messages to all PW and postnatal mothers about early ANC, contraception, use of healthcare facilities, and maternity waiting areas (National Committee for Confidential Enquiry into Maternal Deaths, 2014). Other areas addressed by WBOTs included advising communities about travel arrangements when a pregnant woman was in labour and encouraging all PW to register with Mom-Connect to receive the appropriate pregnancy messages.

Many barriers and challenges to successfully implementing WBOTs in the South African healthcare system have been identified (Lui, Sullivan, Khan, Sachs, Singh, 2011; Motau 2014; Khuzwayo & Moshabela, 2017). According to Wilford, Phakathi, Haskins, Jama, Mntambo and Horwood (2018), WBOTs failed in South Africa because they were costly, difficult to sustain and even more difficult to scale up to provide universal health coverage. This implies that communities face maternal healthcare problems similar to those encountered in previous years.

2.7.8 Skilled-birth attendants

Several studies acknowledge the importance of skilled birth attendance in developing countries to prevent maternal death during pregnancy (SBAs) in the reduction of maternal mortality (Al Kibria, Ghosh, Hossen, Barsha Sharmeen & Uddin, 2018; Yakoob, Ali, Ali, Imdad, Lawn, Van Den Broek & Bhutta 2011; Adatara, Strumpher & Ricks, 2019). A study by Al Kibria et al., (2018) in Bangladesh revealed that PW in

rural areas were less likely to receive services from SBAs than those in urban areas. In South Africa, the SBA programme was also initiated, but did not function properly. The DoH encourages the use of healthcare services and SBAs by offering free maternity services to all women at public healthcare facilities. There is inadequate utilisation of skilled birth care services in developing countries such as Ghana and South Africa, which tend to be a significant hindrance to efforts in improving the maternal health of women, particularly when delivering (Sakeah, McCloskey, Bernstein, Yeboah-Antwi, Mills & Doctor, 2014; Allou, 2018). Instead, traditional birth attendants (TBAs) are used to reduce maternal and child mortality (Allou, 2018). Studies show that TBAs are much more geographically accessible and culturally acceptable to provide most of the basic, but most important care that PW require, along with antenatal and postnatal care where SBAs are scarce (Begohn, Adei & Mireku, 2016; Udo & Doctor, 2016).

The use SBAs in many South African rural areas has not been as successful as anticipated. According to Holland-Muter (2014), promoting skilled attendants at birth is one of the key strategies for reducing maternal mortality affected by the lack of appropriately trained staff, an administrative problem in South Africa. Penn-Kekana and Blaauw (2002) observe that even though South Africa does not use TBA like other African countries, many women in rural areas visit traditional healers during their pregnancies for medicine and protection from witchcraft. As already alluded to in the previous sub-section, women in rural villages tend to be influenced by cultural and societal factors.

2.7.9 Use of maternal guidelines

In 2015, The fourth edition of the Guidelines for Maternity Care in South Africa was published by the NDoH. The guidelines are meant for health workers such as doctors and MW who provide obstetric, surgical and anaesthetic services for PW in primary healthcare facilities where specialist care is not typically available (NDoH, 2015; Malherbe et al., 2016). All healthcare facilities, clinics, community health centres and

district hospitals are encouraged to use the guidelines to develop protocols specific to their needs for identifying, diagnosing and managing common and serious pregnancy and delivery problems (Malherbe et al., 2016). The purpose of guidelines is to improve clinical management and referral to reduce pregnancy-related deaths and ill health (NDoH, 2015; Malherbe, 2016). The guidelines also provide a practical approach for primary healthcare to manage pregnancy, labour and delivery in South Africa with the ultimate aim of reducing maternal mortality (deaths during pregnancy and within 42 days of delivery) (Malherbe, Woods, Aldous & Christianson, 2016). According to Spencer, du Preez and Minnie (2018), policies and guidelines deal with the management of PW and specify what type of management should be provided at each level of care. However, in most cases, continuous support to maternal healthcare services fails because of poorly formulated guidelines or the health staff not being able to follow guidelines properly (Spencer, du Preez & Minnie, 2018). Most of these challenges arise since the national guidelines are intended to be contextualised for each facility, which should develop its protocols based on the national guidelines (NDoH, 2016).

The SEM has been used in several studies to investigate factors influencing maternal mortality in developing and developed countries (Cassel, 2010; Sajedinejad, Majdzadeh, Vedadhir, 2015; Newes-Adeyi et al., 2000). The advantage of the SEM is that it can be adapted to any research context, and the researcher can focus on the levels of interest starting from the inner level to the outer level (Kaiser et al., 2020; Timmermans et al., 2020; Mahmudiono, Segalita & Rosenkranz, 2019). This study utilised all SEM levels to explore factors influencing maternal mortality and practices and measures implemented to reduce maternal mortality. Newes-Adeyi et al., (2000) argue that the ecological model offers a concrete framework to account for the reciprocal interaction of behaviour and individual levels of the environment during a research study. These practices and measures to reduce maternal mortality can be investigated at all five levels: the individual, interpersonal, organisational, community, policy, and how elderly women's knowledge and experience can be investigated using the SEM. This study focuses on developing an intervention in the form of a training

guide for use by elderly women in reducing maternal mortality among women in rural communities. Therefore, the researcher's efforts in collecting data were directed to all five ecological levels to identify factors that can be concentrated on as potentially amenable to change through a training program and applicable to elderly women. Trends in research on maternal mortality that utilised the SEM show that some selected the levels to focus on. For example, Newes-Adeyi et al., (2000) focused on the first four levels of SEM, Kaise et al., (2019) focused on the interpersonal level, and Mahmudiono et al., (2019) focused on the third and fourth levels of SEM. These observations indicate how flexible the SEM can be in studies exploring important real-life factors to propose appropriate solutions. Using findings from practices and measures discussed above, a training guide can be developed and validated for its relevance and acceptance by health professionals and elderly women.

2.8 POSTNATAL PERIOD AS A CRUCIAL STAGE FOR POSSIBLE MATERNAL MORTALITY

According to WHO (2015), the postnatal period, which refers to the days and weeks following childbirth, is a critical phase in the lives of mothers and newborn babies. Studies show that most maternal and infant deaths occur in the first month after birth; that is, almost half of the maternal deaths occur within the first 24 hours following delivery, and 66% occur during the first week post-delivery (WHO, 2015; Udo, 2016). This implies that postpartum is the riskiest period for both mothers and newborns. However, existing evidence suggests that the utilisation of postnatal care is relatively lower compared to the uptake of other similar healthcare services (Zamawe, Masache & Dube, 2015). The fact that most of the deaths of mothers and babies occur in the first days after birth, the early postnatal period becomes the most suitable time to deliver interventions to improve the health and survival of both the newborn and the mother (Sines, Syed, Wall & Worley, 2007). Gülmezoglu et al., (2016) posit that monitoring maternal and newborn health during the postpartum period is critical because the risk of death is highest for newborn babies; 75% of all neonatal deaths occur during the first week of life. Consequently, timely detection and management of

symptoms reduce mortality and complications in women and babies before, during, and after birth.

In South Africa, policy and guidelines for early, integrated postnatal care are in place, although their implementation to strengthen the linkages between maternal health and child health programmes in rural villages need to be improved (NDoH, 2016). According to Sines et al. (2007), most newborn and maternal mortality occurring in developing countries, particularly in sub-Saharan Africa, occurs at home regardless of where the deliveries occurred, with or without a skilled attendant being present at birth. This highlights the importance of the postnatal period in reducing maternal deaths in rural areas with a few healthcare staff. As a substitute for healthcare staff, elderly women could be trained to provide required services while waiting for health staff and other professional services.

2.9 LITERATURE REVIEW REGARDING INDIGENOUS KNOWLEDGE SYSTEM

Indigenous knowledge refers to the understandings, skills, and philosophies developed by local societies based on their long histories of interaction with their natural surroundings. This knowledge informs decision-making among rural people (Morris, 2010). The purpose of the literature review regarding the indigenous knowledge system is to present revealed literature based on beliefs and practices on pregnancy and childbirth from a global, African, and South African perspective.

2.9.1 Indigenous knowledge system on pregnancy and childbirth from a global perspective

Worldwide, a shortage of MW, nurses, and doctors is a great challenge (Awolayo, 2019). TBAs are still preferred and utilised during pregnancy and child birthing in many parts of the world. A TBA is a person who assists a mother during childbirth and initially acquires her skills by delivering babies herself or through an apprenticeship with other TBAs (SA MPNH, 2021; WHO, 2016; Choguya, 2014). TBAs assist about 60-80% of all deliveries. Even more than that in poor resource countries, ANC and

hospital deliveries with skilled birth attendants remain unfavourable, especially to women in the global south (Choguya, 2014).

2.9.2 Indigenous knowledge of pregnancy and childbirth from sub-Saharan African perspective

African traditional healthcare is based on knowledge of ages standing on its own or integrating with Western medicine, which has sustained life (Choguya, 2014). In sub-Saharan African countries, most PW are still attended by elders and TBAs for deliveries (Aryeetey, Aikins, Dako-Gyeke & Adondo, 2015; Aziato & Omenyo, 2018). Some literature shows that many deliveries are still happening outside the healthcare facilities with non-skilled personnel (Aziato & Omenyo, 2018; Sarker, Rahman, Rahman, Hossain, Reichenbach & Mitra, 2016; Serizawa, Ito, Algadda & Eltaybe, 2014). In agreement, a study conducted in Kenya by Riang'a, Nangulu and Broerse (2018) established that most PW in remote rural areas routinely consult throughout their pregnancy from TBAs, mothers-in-law, and older female relatives as an important source of information. In Ghana, healthcare services are inadequate; therefore, services of TBAs continue to be in demand (Aziato & Omenyo, 2018). Most women in rural areas of Nigeria prefer to utilise services rendered by TBAs rather than SBAs due to healthcare facilities' high cost of services and the poor attitudes of healthcare professionals. The study further revealed that women utilise TBAs' low-cost TBA services and flexibility in the payment method (Ntoimo, Okonofua, Ekwo, Solanke, Igboin, Imongan & Yaya, 2022). In Sierra Leone, women continue to seek health advice and services from TBAs outside the healthcare facilities, despite the strategy to encourage the use of healthcare facilities introduced by the government in 2010 to combat maternal and perinatal mortality. This was due to culture and long distance as a barrier. The hospital was seen as a place to go when complications occur (Government of Sierra Leone, 2009; Treacy & Sagbakken, 2015; Fotso, Ambrose & Ali, 2020).

2.9.3 Indigenous knowledge of pregnancy and childbirth from South Africa perspective

In South Africa, 50% of women were reported to utilise services from traditional birth attendance as their preferred choice during pregnancy and childbirth (Seopa, 2021). The DoH reported that the country has an estimated 200 000 traditional healthcare practitioners, of which millions of south Africans are utilising their services instead of healthcare facilities where there are skilled birth attendants (Traditional Health Practitioners Act No 22, 2007). Like any other country, South Africa is experiencing a shortage of skilled birth attendance. Women's choice of where and from whom to seek assistance regarding pregnancy and childbirth are deeply rooted in culture and beliefs (Awolayo, 2019). TBA services are accessible, available, affordable, and faith-based, with strong interpersonal relationships, cultural knowledge, and sensitivity (Ohaja & Murphy-Lawless, 2017; Akeju, Oladapo, Vildler, Akinmade, Sawchuk, Qureshi, 2016). The study conducted by Seopa (2021) in the Eastern Cape Province reports that most Xhosa-speaking women use indigenous practices for themselves and their newborns to preserve pregnancy from witchcraft and childhood illness. In agreement, Mogawane, Mothiba and Malema (2015) and Seopa (2021) stated that in Limpopo Province, intervention by traditional health practitioners was valued and trusted by families and PW. However, indigenous practices were regarded as an honourable health intervention.

Traditionally, the role of TBAs starts immediately when the woman reports missed periods. Therefore, it is widely acknowledged that TBA services will still be utilised, especially in many parts of rural areas. However, even though other literature encourages the utilisation of healthcare services, there is a need to integrate the services with respect to traditional and cultural beliefs meant to preserve both the mother and child. These beliefs are culturally inherent and passed from one generation to other.

2.9.4 Themes on which the literature review was grounded on

As revealed by the literature, there is a need to understand and develop programmes that are inclusive of indigenous knowledge. African traditional healthcare is grounded in thousands of years of knowledge that is believed to sustain the life of both the mother and the baby (Choguya, 2014). Despite strategies and programmes developed to reduce maternal mortality focused on biomedical intervention, there is still a challenge in the utilisation of healthcare services influenced by traditions and cultural beliefs. However, other literature revealed access to healthcare services as a barrier, especially for women living in deep rural communities (Wilunda, Scanagatta, Putoto, Montalbetti, Segafredo, Takahashi, Mizerero & Betrana, 2017; Aziato & Omenyo, 2018).

2.9.4.1 Theme 1: Culture practices and beliefs during the pregnancy period

Cultural practices impact women's lifestyle, maternal health choices, and healthcare utilisation, which is influenced by beliefs, attitudes and health behaviour (Awolayo, 2019). Cultural practices reflected during this review were nutrition based on beliefs of traditional birth attendance and religion.

- **Nutrition**

Culturally, women are encouraged to eat certain types of food and drink. Most of the food to be avoided during pregnancy are rich sources of protein and iron; the rationale for this is that it is believed to cause salivation in the newborn (Lang-Balde & Amerson, 2018; Odekunle, 2016). In Nigeria, foods that are avoided include meat, eggs, corn porridge, snails, and certain beverages like milk (Esienumoh et al., 2016; Awolayo, 2019). Vegetables were avoided in Oyo State women as it is believed to cause stomach pain, gas and bloating for PW, and hiccough and gasping for infants (Ezeama & Ezeamah, 2014).

Consumption of alcohol during pregnancy, especially homemade alcohol, is common among women in particular cultural groups, which could cause hepatitis, and a risk factor for maternal mortality (Ajiboye & Adebayo, 2012, cited in Awolayo, 2019). In South Africa, the high consumption of alcohol among PW was due to the lack of understanding of its implication on their health and that of the baby (Ordinioha & Brisibe, 2015).

- **Religion**

There is a relationship between religion and the utilisation of healthcare services. Religious influence on maternal health depends on a woman's religious affiliation (Solanke, Oladosu, Akinlo & Olanisebe, 2015; Awolayo, 2019). According to Esienumoh et al. (2016), religious leaders influence woman's choice in the utilisation of healthcare services. In agreement, Ugwu and de Kok (2015) alluded that some religious leaders urge their followers to believe in God for a divine intervention to deliver without seeking assistance from skilled birth attendants despite the maternal and fetal risk. Religious practices influence health-seeking behaviour, which may contribute to variability in the uptake of such services (Hussen et al., 2014; Awolay, 2019). As revealed in the literature, other practices are religiously aligned, like Muslims in Northern Nigeria wearing purdah to prevent a woman from interacting with a man in public, contributing to their choices for respective home delivery that leads to preventing them from utilising healthcare services (Shamaki & Buang, 2015; Ariyo et al., 2017; Awolayo, 2019).

- **Use of Traditional Birth Attendance**

The preference for women on who, when and where to seek assistance for pregnancy and childbirth are cultural inheritances deeply rooted in culture and beliefs. Most women in rural areas acknowledge the roles of TBAs. Amutah-Onukagha et al., (2017) established that TBAs are believed and trusted by the community to provide culturally competent, consistent, compassionate and comprehensive care in maternal and child health. However, Akeju et al., (2016), Ohaja and Murphy-Lawless (2017) and Awolay

(2019) alluded that the reason women prefer services that are provided by TBAs is that they are available, accessible, affordable, cultural knowledge, and sensitive.

- **Cultural practices and beliefs during the childbirth period**

Various cultural beliefs attached to the childbirth process potentially influence maternal and child health outcomes. These beliefs vary from the progress of labour, acceptable behaviour during labour, where birth should occur, and expect healthcare personnel to handle complications (Awolayo, 2019). Lange-Balde and Amerson (2018) and Thaddeus and Maine (1994), cited in Awolayo (2019), alluded that women receive honour and gain respect if they give birth without being assisted. On the other hand, Fulani women in the Northern parts of Nigeria have cultural obligations to be modest during labour. They are expected not to scream in pain (Shamaki & Buang, 2014, cited in Awolayo, 2019).

- **Use of traditional and herbal medicine**

The use of herbal medicine during childbirth is a common practice recommended in remote areas to aid in safe passage (Ajiboye & Adebayo, 2012, cited in Awolayo, 2019). In addition, in some cases, herbal enema is reported to prevent postpartum haemorrhage and ward off evil spirits (Dorwie & Paquiao, 2014; Esienumoh et al., 2016). Insertion of jute leaves (plant to make cloth) to induce labour, inducing emesis to expel the placenta and fundal pressure application to enhance labour progress are traditions that are commonly practised in low and middle-income countries like Nigeria, Tanzania, and South Africa (Fakeye, Adisa & Musa 2009 cited in Awolayo, 2019; Bucher et al., 2016; Byrne et al., 2016).

- **Cultural practices and beliefs during the postpartum period**

Culturally, this period is regarded as seclusion, allowing a woman to heal and recover to a non-pregnancy state. Cultural practices during this period moved women to their parental homes in some other countries to receive help in their homes (Davis, 2001,

cited in Awolayo, 2019). For example, in Nigeria, women are confined for at least 40 days after giving birth in order to gain strength and quicken recovery to the pre-pregnancy state while receiving assistance from relatives and friends (Dike, 2013, cited in Awolayo, 2019). In the Southern part of Nigeria, elderly women in the family (either her mother or mother-in-law) take up all the responsibilities, giving physical and emotional support and some nurturing advice (Ekanem, John, Ekott & Udoma, 2004; Okafor, 2000 cited in Awolayo, 2019).

In this postpartum period, Nigerian women are allowed to eat different nourishing and spicy food like pepper soup and alcohol consumption. It is believed to stimulate breastmilk and facilitate recovery from pregnancy anaemia (Ekanem et al., 2004; Iliyasu et al., 2006 cited in Awolayo 2019). Although women are considered unclean, many cultures place restrictions on the resumption of sexual intercourse (Chien et al., 2006, cited in Awolayo, 2019). Okeke, Ugwu, Ezenyeaku, Ikeako and Okezie (2013), cited in Awolayo (2019), alluded that sexual intercourse is discouraged within six weeks after giving birth to allow the perineal area to heal, prevent vaginal lacerations, haemorrhage, and vaginitis.

2.9.4.2 Theme 2: Barrier to accessing the healthcare system

Many PW in remote rural areas do not attend ANC. Traditions and culture had a relatively weaker influence on ANC attendance more alarming influence on institutional childbirth (Wilunda, Scanagatta, Pototo, Takahashi, Montalbetti, Segafredo & Betran, 2016). Most PW do not attend clinics because of long distances to the healthcare facilities, lack of transport means, the inability to pay the cost of seeking care, and the roles of elders in the family. These issues are briefly described below.

- **Long distance to healthcare facilities**

Long distances to healthcare facilities impact women's knowledge regarding the importance of utilising healthcare services and making choices to seek care (Dickson et al., 2013, cited in Namatovu, 2018). In a study conducted in Tanzania and Sudan by Kohi, Mselle and Aston (2018) and Lawry, Canteli, Rabenzanahary and Pramana (2017), it was reported that distance was one more barrier for PW to access healthcare facilities.

- **Lack of transport to the healthcare facilities**

Transport was reported in most studies as a barrier for PW to access healthcare facilities (Wilunda, Scanagatta, Putoto, Takahashi, Montalbetti, Segafredo and Betran, 2016; Kaba, Taye, Gizawa & Mitiku, 2017; Nyathi, Tugli, Tshotangano and Mpfu, 2017; Mugo, Dibley, Damundu & Alam, 2018). In a study conducted in Nepal, Olayinka, Achi, Amos and Chiedu (2014), cited in Chalise, Chalise, Bista, Pandey and Thapa (2019), revealed that women who reside in deep rural settings face challenges in accessing healthcare facilities due to difficult geographical terrines, poor road network, and lack of public transport. This aligns with Arnold, Samson, Schechter, Goodwin, Braganza, Sesso, Lopez and Fiori (2016), who posit that for women in Northern Togo to access healthcare facilities, they had to walk as it is the only method due to poor road network.

- **Roles of elderly women in the family (power relations in the family)**

The roles of elderly women (mother, mother-in-law, and grandmother) in the family impact the utilisation of healthcare services. Some elders in the family would ensure that they provide medication for their expectant daughter through experience as it has worked for them, and they believe it will protect the woman and unborn child (Yarney, 2019). A study conducted by Masele (2018) in Southern Tigray reported that PW seek help from TBAs, elderly women, healers, families, communities, neighbours, and

nearby available healthcare service providers to relieve common pregnancy minor ailments. TBAs and elderly women or other relatives massage the abdomen of the PW with the use of butter to turn the unborn baby's position if they believe it is abnormal. An abdominal massage is one of the cultural base healing systems in Raya Alamata District during pregnancy and childbirth. The availability of TBAs, elders and neighbours during home delivery and gifts, such as money for birthing women, encourages women to deliver at home instead of using healthcare facilities (Masele, 2018). The study further revealed that beliefs and practices play a vital role in delaying PW from seeking early medical assistance.

2.9.4.3 Theme 3: Need for elderly women and traditional birth attendants to be trained

Adgoy (2018) established that the literature confirms that training TBAs and provision of delivery kits from the local health system could decrease maternal mortality rates, mainly in developing countries with low-skilled birth attendants and poor road infrastructure. This is in line with Dapaah and Nachinaab (2019), who recommends that the government of Ghana should train more TBAs, especially in rural areas, in order to improve maternal and child health. In agreement, Ohaja and Murphy-Lawless (2017) stated that training TBAs would play a vital role in facilitating timely referral to the healthcare facility, thereby reducing maternal mortality rates. However, Awolayo's (2019) community mobilisation and awareness and training of TBA may also serve as maternal health delegates with the community is recommended in order to discourage or reduce unsafe practices and promote maternal healthcare services.

2.10 CHAPTER SUMMARY

This chapter presented individual knowledge and attitudes regarding the utilisation of healthcare services; physical environment factors, such as barriers leading to unhealthy choices, the influence of family and community members on the utilisation of healthcare services, and the use of indigenous knowledge, practices and measures to

reduce maternal mortality among PW. The next chapter discusses the study's research methodology and design.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

According to Sileyew (2019), a research methodology is an important part of any study because it shows how researchers need to conduct their research study. The research methodology adopted in a study depends on the nature of the research problem being solved, the data needed, and the methods of data analysis to be used (Brink, Van der Walt & Van Rensburg, 2014). This study sought to understand practical issues related to maternal mortality rates among PW from elderly women, PW, and other stakeholders. The study collects qualitative data on personal experiences and roles of elderly women in participation to maternal health and child health practices. This study sought to understand practical issues related to maternal mortality rates among PW from elderly women, PW, BFM, and MW. The study involves collecting qualitative data on personal experiences personal experiences and roles of elderly women in participation to maternal health and child health practices. Maternal mortality remains a topical issue in the Limpopo Province; thus, this requires a local solution that involves PW and BFMs, elderly women, and midwives who can suggest strategies to alleviate this problem. This methodology was chosen because of the data collection methods the researcher intends to use, namely: FGDs and individual interviews.

This study will be conducted in two phases: Phase 1 is the situational analysis, and Phase 2 develops the training programme. Figure 3.1 depicts the research methodology chain.

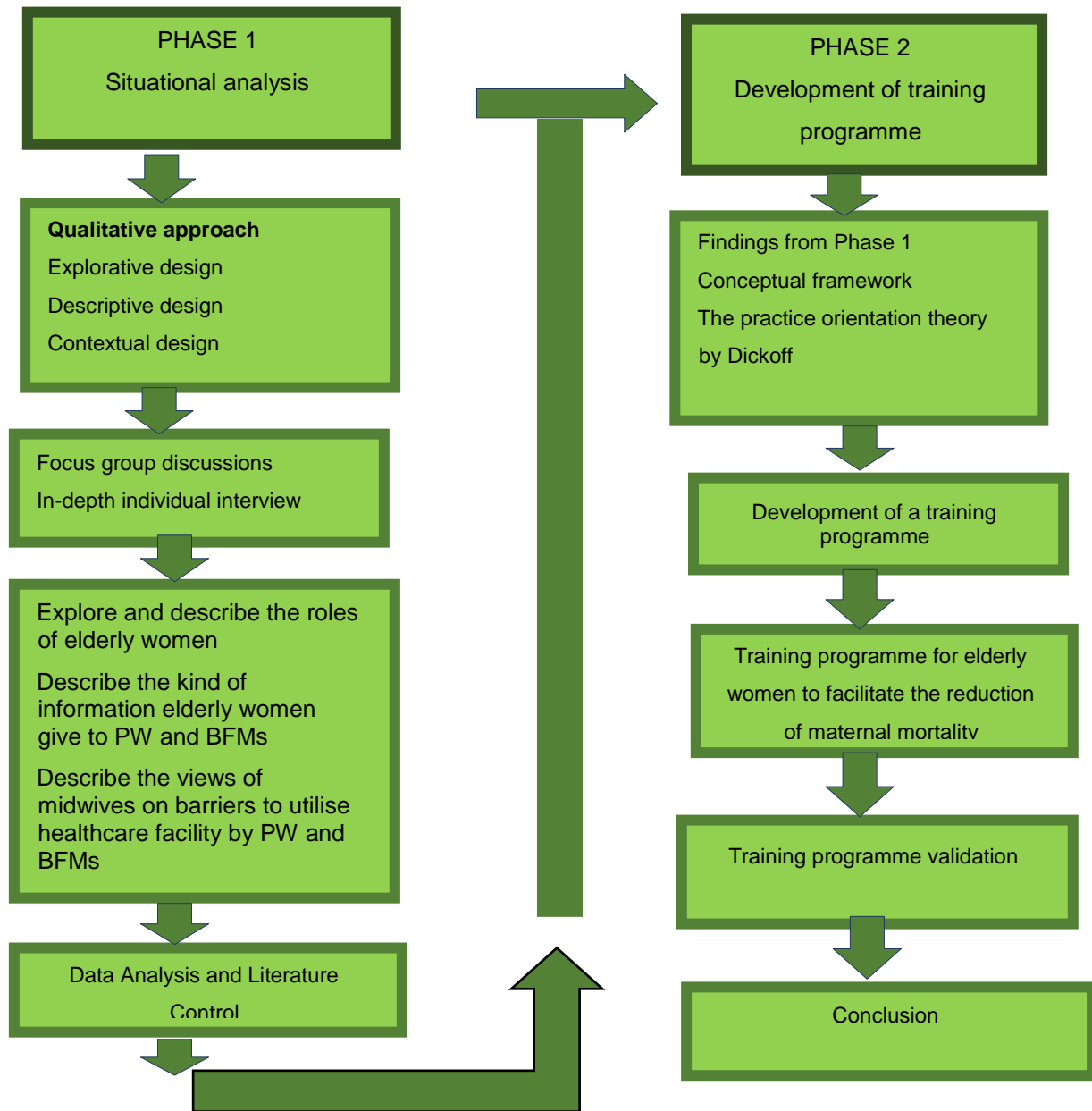


Figure 3.1 Research methodology chain

3.2 PHASE 1: SITUATIONAL ANALYSIS

The sub-sections in this section provide a detailed account of the research activities to be undertaken in this study.

3.2.1 Qualitative approach

The research approach used in this study is qualitative. Qualitative research is a form of social action that stresses how people interpret and make sense of their experiences to understand the social reality of individuals (Mohajan, 2018). In contrast, Astalin (2013) describes qualitative research as a systematic scientific inquiry which seeks to build a holistic, largely narrative, description to inform the researcher's understanding of a social or cultural phenomenon. Qualitative research is a process of inquiry to understand a social or human problem based on building a complex, holistic picture, formed with words, reporting detailed views of informants and conducted in a natural setting (Creswell, 2014; Creswell & Creswell, 2018). Qualitative research involves an interpretive and naturalistic approach to its subject matter in which researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them (Patrik & Corte, 2019). Burns and Grove (2009) also view qualitative research as a systematic and subjective approach that highlights and explains daily life experiences and give them proper meanings.

The primary goal of a qualitative research approach is to describe and understand as opposed to providing some explanations for social actions and feelings (Daniel, 2016; Babbie, 2014). This implies that the researcher is provided with an opportunity to critically observe and interpret the meaning that people continually construct about the research problem (Daniel, 2016). In this study, a qualitative research approach will allow the researcher to explore and discover issues about the roles of elderly women in maternal health involvement in the province because very little is known about the problem and how it could be solved. Due to the prevalence of this problem among PW and BFM, there is uncertainty about the major feelings and beliefs on how to solve

the problem. This study will use a qualitative research approach to understand the people, social, and cultural contexts within which the problem occurs. This study uses SEM to understand the problem and how it could be solved.

The qualitative approach enables the researcher to generate a detailed description of the experience of patients and families that increase nurses' understanding of the best way to intervene and be supportive (Gray, Grove & Sutherland, 2017). In this study, a qualitative approach enabled the researcher to explore and describe the roles of elderly women in participation in maternal health practices during pregnancy and postnatal periods and their experiences regarding the promotion of maternal health. This might increase the understanding of the involvement of elderly women in the health of PW to improve the reduction of maternal mortality. Addressing the gap for improvement in maternal health will also be easier.

- **Advantages of the qualitative approach**

There are benefits of using qualitative research approaches and methods in a research study which seeks to solve a social problem. A study by Berg and Howard (2012) asserts that qualitative research can aid problem-solving because it focuses on meanings, concepts, definitions, metaphors, symbols, and a description of things, and it can allow the researcher to use all necessary instruments. This strength of the qualitative approach is realised in its data collection techniques, such as observation, open-ended questions, in-depth interviews, and field notes, which are used to collect data from participants in their natural settings (Daniel, 2016). According to Rahman (2017), the qualitative research approach can generate a detailed description of participants' feelings, opinions, and experiences, and interpret the meanings of their actions. This study capitalised on the strength of the qualitative approach used in order to gain information regarding the feelings, opinions, and experiences of elderly women on the care of PW and BFMs, particularly looked at cultural perspectives. The findings of the study that assisted in the development of a training programme for elderly women.

3.2.2 Research design

A research design is a research plan used to address different parts of the research study, starting from the assumptions to detailed methods of data collection and analysis (Creswell & Creswell, 2018). The research plan enabled the researcher to integrate different parts of a study into a coherent and logical way to address the research problem effectively (Creswell, 2014). Therefore, a research design is a blueprint for conducting a study that maximises control over factors that could interfere with the study's design outcome (Gray, Grove & Sutherland, 2017). In this study, the exploratory, descriptive, and contextual designs will be used to enable the researcher to generate descriptions by allowing the participants to narrate, explore, describe, and contextualise their views and experiences. Furthermore, the purpose of the research design was to ensure that the researcher effectively addresses the evidence obtained as consistently as possible.

3.2.2.1 Exploratory research design

An exploratory design was used in Phase 1 of the study. An exploratory research design is a research plan used in a study undertaken in areas where very little prior knowledge or information is available on the problem being studied (Polit & Beck, 2014). Furthermore, using exploratory design shows that the researcher is eager to study new ideas and possibilities without imposing preconceived thoughts and premises to direct the research (Creswell, 2014; Gray, Grove & Sutherland, 2017). In this study, the researcher first explored the roles and experiences of elderly women in participation in maternal health practices looking at their involvement, influence, and support they provide to PW during the antenatal, delivery and postnatal period. The researcher explored the dimensions of the research problem through a literature review and interviews with elderly women, pregnant and breastfeeding women, family members, and social workers. To achieve this, the researcher conducted semi-structured interviews with a purposive sample of participants in a focus group who provided qualitative information. Data will be analysed and interpreted following Tesch's eight steps as recommended by de Vos (2017). The study findings will be

used in developing a training programme for elderly women to improve the reduction of maternal mortality.

3.2.2.2 Descriptive design

Similar to exploratory design, the descriptive design was used in Phase 1 of the study for needs analysis. According to Haydam & Steenkamp (2021) the major purpose of many social scientific studies is to describe situations and events. Therefore, the purpose of the qualitative descriptive design is to enable the researcher to plan for data collection, which describes phenomena as they exist (Bradshaw, Atkinson & Doody, 2017). In this study, a descriptive research design will be used to collect descriptive information on what elderly women do in promoting the maternal health of PW and elderly women until data saturation is reached. The researcher will allow participants (elderly women) to describe their roles in maternal health regarding cultural practices. The researcher will seek to get a picture of what elderly women are involved in and their support and influence on health decisions that affect maternal mortality. The results obtained will be used to determine what aspects to include in the programme for elderly women as a measure to reduce maternal mortality in Limpopo Province.

3.2.2.3 Contextual research design

Stahl and King (2020) posits that a contextual design is important when researchers seek to describe and understand events within the concrete, natural context in which they occur. This implies that when the researcher understands the events against the background of the whole context, he/she can truly claim to understand them (Stahl & King, 2020)). Similarly, this makes it important for this study to understand the context in which maternal mortality occurs, the district, communities and families, the cultural values, and situations. SEM provides a full view of an individual's situation within their social environment (the family and community for the elderly, PW, BMs, and MW). This study's unique contexts include families, communities, health facilities, elderly women, PW, and breastfeeding women. This is consistent with SEM, which

emphasises the need to study the contexts in which events occur so that the researcher would have insights into how these could be used to bring about behaviour change. The participants described and related the contexts in which women choose to hide problems during the early stages of the pregnancy. The study only focused on Vhembe and Capricorn as the study settings; other districts in Limpopo were omitted from the study.

3.3 STUDY SETTING

This research study was conducted in a natural setting. Gray, Grove and Sutherland (2017) articulate that a natural or field setting is an uncontrolled real-life situation or environment. The study was conducted in rural villages of Limpopo Province. The province is situated in the North-Eastern corner of South Africa and shares borders with Botswana, Zimbabwe, and Mozambique. The province has five districts, namely Capricorn, Mopani, Sekhukhune, Vhembe, and Waterberg. The province is considered poor, with approximately 80% of people living in rural areas (DoH, 2012). Only two districts, Vhembe and Capricorn, were used in this study. Vhembe District has the largest population and the highest number of PW (Stats SA, 2016). In contrast, Capricorn District is chosen in this study due to its escalating number of maternal mortality reported by the Saving Mothers Report (2014-2016).

3.3.1 Vhembe District

Vhembe District is in the northern part of the Limpopo Province. It comprises four local municipalities, namely: Collins Chabane, Makhado, Musina, and Thulamela. The district covers 21 407 square kilometres of land with a population of 1 415 907 people (Stats SA, 2016). The researcher chose Vhembe District because it has the highest number of population and PW (Stats SA, 2016). The Venda-speaking people in Vhembe District are the most dominant group, followed by Tsongas, foreigners such as Zimbabweans, a few Mozambicans, and Somalians. The district has eight functional hospitals, 121 clinics, and eight community health centres.

- **Musina Local Municipality**

Musina Local Municipality, under Vhembe District, was chosen by the researcher as a field setting because it is considered the most rural area in Vhembe District and is in the district where the researcher has observed the problem. The municipality has one hospital and 13 healthcare facilities. Musina Hospital is approximately 15km from the Zimbabwe border, and it is within reach. Musina Local Municipality is overcrowded due to the immigration of Zimbabweans. Most of them cross the border seeking medical attention, especially PW, because they cannot afford to pay for health system delivery in Zimbabwe, whereas maternal and child health services in South Africa are free. Some people who migrate from Zimbabwe to Musina are often physically stronger and often have families or some connection to south Africa. It was elucidated that 90% of patients seeking medical advice in Musina Hospital are Zimbabweans (Musina IDP, 2018/19). Limpopo Province DoH visited Musina Hospital and found that out of 10 babies born, seven were not South African (DoH, 2012).

The report by Musina IDP (2018/19) shows that the municipality is facing the following challenges:

- Overcrowding in all health facilities
- Shortage of health personnel
- Most of the old equipment is difficult to use or broken
- Poor road surfaces

The above mentioned challenges might encourage the women to utilise the available and accessible services rendered by traditional health practitioners in order to avoid walking long distance to health care facilities and long waiting period due to overcrowding and shortage of health care personnel.

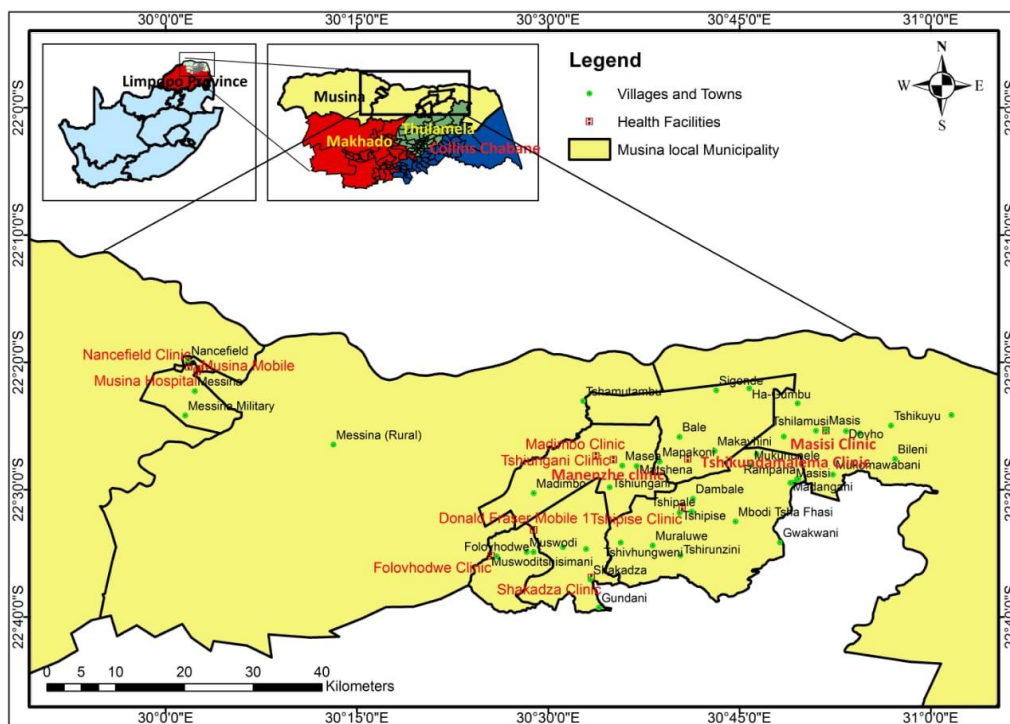


Figure 3.2: Vhembe District, Musina Local Municipality, health services map (2019)

3.3.2 Capricorn District

This district is situated in the Limpopo Province. It forms a gateway to Botswana, Zimbabwe and Mozambique. It consists of the following four local municipalities: Blouberg, Lepelle-Nkumpi, Blouberg, and Polokwane. The district covers 21.705 km² of land with a population of 1 317 444 people (Stat SA, 2016). The researcher chose Capricorn District as a field setting due to its escalating number of maternal mortalities, as reported by Saving Mothers Report (2014).

- **Blouberg Local Municipality**

Blouberg Local Municipality is situated towards the far northern part of the Capricorn District, bordered by Aganang in the south, Blouberg in the south-west, Makhado in the north-east, Lephalale in the north-west, with Mogalakwena in the south-west, and

Musina in the north. The municipality has five traditional authorities: Maleboho, Makgato, Seakamela, Kibi, and Mamadi. It is the third densely populated municipality within Capricorn District and has a population of 162 629 and 35 598 households.

The researcher choose the Blouberg Local Municipality as a field setting because it is considered the most rural area in the Capricorn District. This municipality is found in a district with a backlog of water, roads, sanitation, education, and health. The municipality has 25 clinics, two community health centres, and one hospital, which amounts to 28 health facilities.

The Blouberg IDP (2018/19) reports that the municipality is facing the following challenges:

- Only three clinics out of 22 operate for 24 hours
- Five villages have no clinics (Dilaeneng, Mamoleka, Milban, Senwabarwana, and Tolwe)
- High levels of unemployment and illiterate rates
- Roads are inaccessible, especially during rainy days, as they become waterlogged
- Transport is only available at 06h00 in the morning and 18h00 in the evening
- Communities use donkey carts and bicycles to supplement means of transport
- High prevalence of HIV/AIDS
- Substance abuse, especially alcohol
- High poverty levels
- Overloaded indigent and teenage pregnancy leads to a high rate of school dropout

All these challenges stated above might act as a barrier for the utilisation of health care facilities by pregnant women. Lack of clinics to some of the villages and unavailability of transport might contribute to delay in utilisation of health care services and consider the accessible and available services rendered by traditional health practitioner.

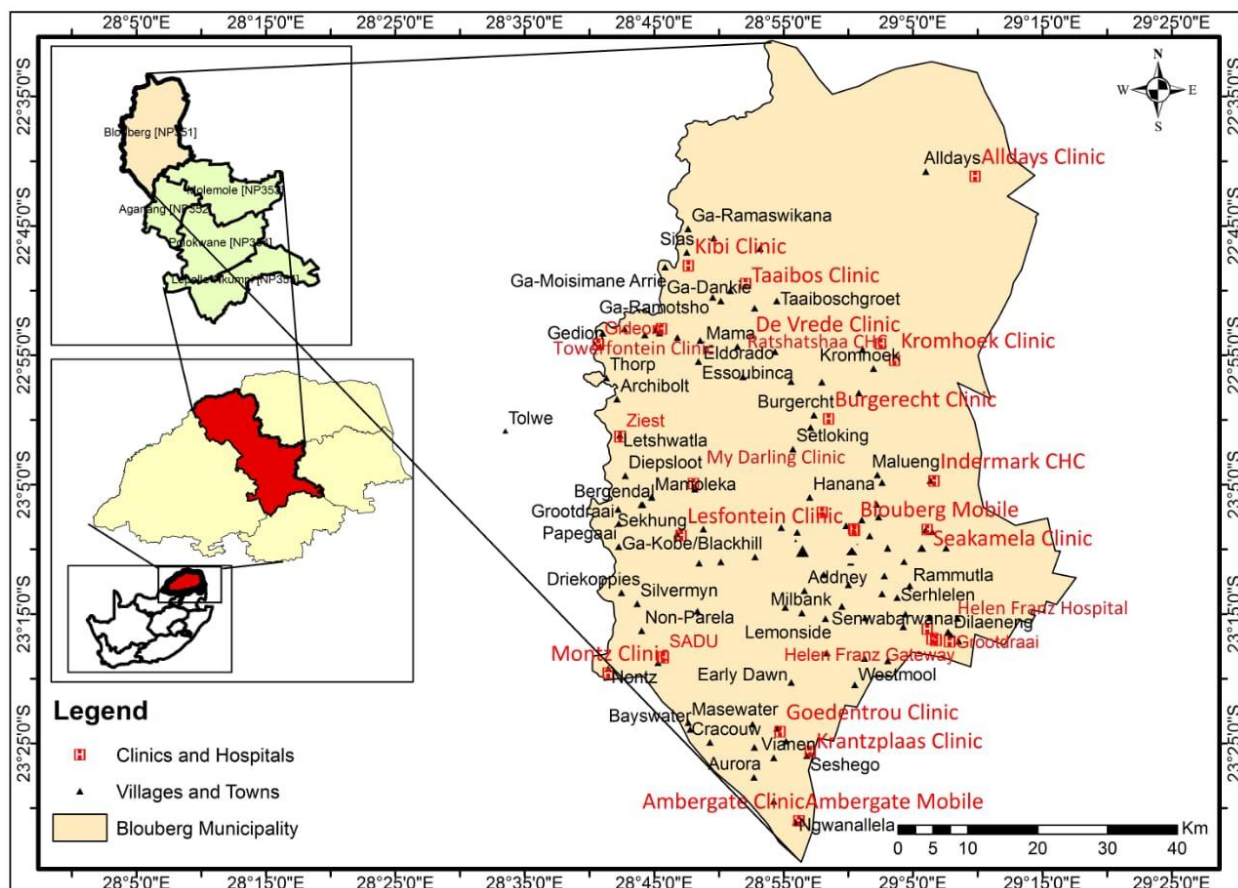


Figure 3.3: Capricorn District, Blouberg Local Municipality, health services map (2019)

3.3.3 Cultural differences and similarities of Vhembe and Capricorn district

Vhembe and Capricorn district share similarities in terms of culture related to pregnancy and childbirth. Vhembe district consist of Vhavenda, Tsonga and Bapedi speaking people of which Vhavenda are the ones that are dominant. Capricorn district consist Bapedi, Vhavenda and Tsonga speaking people of which the district is dominantly by Bapedi speaking people. These similarities are rooted in cultural belief and traditional norms of the specific community members with the influence of elderly women, such similarities are described as follows:

- In Pedi, Sexual act is not permitted in the last two months of third trimester because if the penis can pierce the fontanelle, the baby can be harmed in the

process, in Vhavenda, it is believed that vernix found on the body of new-born is the sperm so to prevent that they discourage sexual act in the last two months of pregnancy.

- In Pedi, Pregnant women should not eat eggs as it increases the amount of amniotic fluid and labour will be obstructed, whereas in Vhavenda eating eggs causes obstruction in the birth canal leading to difficult deliveries
- In both Vhavenda and Bapedi, pregnant woman should not stand by the door side because the baby will stuck at the birth canal
- Pedis' and Vendas' and Tsongas' discourage the woman to eat large amount of food as the baby will grow big while inside the utero leading to cesarean section delivery.

Table 3.1: Outline of the research process-objectives for situational analysis

Objectives	Research design	Population	Sampling method of village	Sampling method of elderly women	Data collection method	Data analysis
1. To explore and describe the roles of elderly women in participation in maternal health practices in Limpopo Province, South Africa	Qualitative, descriptive and exploratory	Elderly women	Random sampling	Non-probability purposive sampling	Focus group interview	Tesch's method
2. To explore and describe the experiences of PW and BMs regarding the utilisation of healthcare facilities	Qualitative, descriptive and exploratory	PW	Purposive sampling	Non-probability convenience sampling	In-depth individual interview	Tesch's method

		BMs		Convenience sampling	In-depth individual interview	Tesch's method
3. To explore and describe MW views regarding the barriers to delaying PW and BMs from seeking medical attention	Qualitative, descriptive and exploratory	MW	Purposive sampling	Non-probability convenience sampling	In-depth individual interview	Tesch's method

3.4 POPULATION

A population is a group of persons or objects that are of interest to the researcher (Burns, Grove & Gray, 2011; Polit & Beck, 2014). This implies that a population refers to all the individuals with the features that meet the researcher's criteria (Creswell & Poth, 2017). This study's target population consists of elderly women, PW, BFM, and MW from rural areas in Vhembe and Capricorn Districts. The purpose of this research is to influence the selection of the target population.

3.4.1 Target and accessible population

A target or theoretical population refers to the entire group of individuals or objects to which researchers are interested in generalising the conclusions (Asiamah, Mensah & Oteng-Abayie, 2017). On the other hand, the accessible or study population is the population in research to which the researchers intend to apply their conclusions (Asiamah et al., 2017). An accessible population is a subset of the target population, and it is the one from which the researcher draws samples. Consequently, the study utilised four accessible populations as listed below:

- (1) Comprised of all elderly women aged between 50 to 70 years, whose daughters and daughters-in-law delivered a term baby in the past five years.
- (2) PW aged 20 to 35 who previously delivered a term baby.

- (3) BFMs who come for postnatal visit within six days following delivery.
- (4) MW residing and working in Vhembe and Capricorn Districts, Limpopo Province.

The total number of each target population group from each district described below in table 3.2.

Table 3.2: Number of target population per district

District	Target population	Target number
Vhembe	1.Elderly women	20
	2.Pregnant women	10
	3.Breastfeeding mothers	5
	4.Midwives	10
Capricorn	1.Elderly women	20
	2.Pregnant women	10
	3.Breastfeeding mothers	5
	4.Midwives	10

3.5 SAMPLE AND SAMPLING

A sample is a finite part of a statistical population whose properties are studied to gain information about the whole (Cohen, Manion & Morrison, 2018; Creswell & Creswell, 2018). A sample comprises elements or sub-sets of the population measured for actual inclusion in the study, drawn from the access population with which the researcher is interested in conducting a study (de Vos et al., 2017; de Vos, Strydom, Fouché & Delport, 2011). Sampling is the process by which the researcher selects a sample from the accessible population that will be included in the study.

3.5.1 Sampling approaches and techniques

This study was qualitative in nature; therefore, it required the use of a non-probability sampling technique. Polit and Beck (2014) posit that non-probability sampling methods

mean that not everybody in the population has an opportunity to be selected. Non-probability sampling allows the researcher to select individuals and sites because they are available, convenient, and represent some characteristics the researcher wants to study (Creswell, 2014). Purposive sampling involves a deliberate inclusion of an element in the study based on the researcher's judgement on its suitability. Different sampling procedures will be applied to select the participants to be included.

3.5.1.1 Stage one: Sampling of the districts

Purposive sampling was employed in this stage because it involved the researcher's judgment on which districts had the required characteristics to achieve the research objectives (de Vos, 2017; de Vos, Strydom, Fouché & Delpont, 2011). The study purposively selected Vhembe District because of the highest population and PW in Limpopo Province. Table 3.3 highlights the total population and number of PW in Limpopo Province.

Table 3.3: Total populations and number of pregnant women per district of Limpopo Province

Districts	Total population	Number of pregnancies
Vhembe	1 493 306	35 855
Capricorn	1 358 841	30 623
Mopani	1 275 724	27 833
Sekhukhune	1 266 928	30 271
Waterberg	733 144	15 011
TOTAL	6 127 943	139 593

Source: Department of Health (2018)

Capricorn District was purposively selected in this study due to the escalating number of maternal deaths (Saving Mothers Report, 2017). Table 3.4 highlights the number of deaths during pregnancy, childbirth and puerperium in Limpopo Province.

Table 3.4: iMMR of Limpopo Province ranked highest to lowest per district level (deaths during pregnancy, childbirth and puerperium)

Districts	Live birth	Maternal deaths	iMMR
Capricorn	26678	82	307,37
Waterberg	14411	21	145,72
Mopani	24232	28	115,55
Sekhukhune	25018	28	111,92
Vhembe	28824	22	76,33
TOTAL	119163	181	756,89

Source: iMMR of Limpopo Province per district (Saving Mothers Report, 2017)

3.5.1.2 Stage three: Sampling of villages

The researcher opted to utilise one village from each of the selected districts. Non-probability random sampling was used to sample the villages. Purposive sampling enables the researcher to determine what village is required and seeks out those who can and are eager to supply it based on their skills or experiences (Ilker, Sulaiman, & Rukayya, 2016). In this study, no-probability purposive sampling was used to sample the villages, where researcher used expertise to choose specific village with participants that helped the study meet its goal. The researcher chose one village per district with football soccer club of elderly women. This was done with the assistance from midwives at primary healthcare facility who indicated that the selected village there are elderly women who play soccer. The target population of elderly women was 20 per each district.

Inclusion criteria

- Fall within the geographical study sites of the two districts

3.5.1.3 Stage two: Sampling of healthcare facilities

Four clinics were sampled based on the low rate of ANC booking and highest rate of not complying to follow up dates for BANC attendance. This was achieved by looking at the ANC attendance book register with the assistance from midwives working at that specific facilities. Purposive sampling was used to select two clinics out of 12 clinics from Musina Local Municipality. In addition, two clinics from Blouberg District were also considered. Blouberg District has a total of 25 clinics.

Inclusion criteria

- Four clinics with a significant number of ANC within the two selected districts
- Fall within the geographical study sites of the two selected districts

3.5.1.4 Stage four: Sampling of participants

The following participants were sampled: elderly women, PW, BFM, and MW.

Elderly women to participate in a focus group discussions

In this stage, non-probability purposive sampling was used to select participants for the FGDs (Taherdoost, 2016). In this study, elderly women from rural areas of Capricorn and Vhembe Districts were purposively selected. The researcher made arrangements with the headman on the day of gathering and the researcher was given time to address the elderly women about the study. Arrangements were done with the elderly women who were willing to participate and gave consent. Appointment to meet elderly women regarding date and time was set and the place to meet for group discussions were in the chief skraal. The sample of elderly women from each district consisted of sixteen participants per district where we had three groups of focus group discussions, no 1 had six members, no 2 had six members and no 3 had only 4 members who participated and twenty one participants from another district of which no 4 had nine

members, no 5 had six members and no 6 had six members of participants which makes a total of thirty seven members who participated in the focus group discussions. The study reached data saturation on the fourth FDGs and the researcher continued with another two FDGs to check for any new information that could emerge to make a total of six FDGs.

Inclusion criteria

- Elderly women aged between 50 and 80 years
- Each elderly woman must have a daughter or daughter-in-law who delivered a baby within the last five years
- Elderly women should be able to give verbal or written informed consent
- The elderly women should have been living in the geographical study site of one of the two districts for five years

Pregnant women

A sample of 10 PW who previously delivered a term baby was conveniently sampled; five at each of the two sampled clinics per district when they come for basic antenatal care (BANC) visits to make a total of 20 participants. PW were selected looking at the ANC attendance register book with the assistance of midwives. Contact numbers of PW were taken from the ANC register book, called them telephonically and appointment was made on her return date for BANC. During the collection of data through in-depth individual interview, saturation of data was reached at participants number seven but the researcher continued with another three more participants to check for any new information that could emerge which made a total of 10 PW interviewed.

Inclusion criteria

- Pregnant women must be aged 20 to 35 years, and previously delivered a term baby
- Able to give verbal or written informed consent
- Living within the geographical study sites of the two districts

Breastfeeding women

Five BFMs were conveniently sampled from each clinics per each district to those who came for a postnatal visit on day three following discharge from the hospital. Target group for BFMs were five per clinic per each district to make a total of 20 participants. Participants were selected on the day of postnatal check-up within six days following deliveries. In-depth individual interviews was used to collect data from five BFMs who came for postnatal check-up. Upon receiving consent from the participants, interview was conducted after the patient was examined. Only five BFMs were interviewed and data was already saturated as the interview question was the same as for PW. The researchers couldn't go further as there was no new information emerged.

Inclusion criteria

- Breastfeeding mothers who came for a postnatal visit on day three following discharge from the hospital
- Able to give verbal or written informed consent
- Living within the geographical study sites of the two districts

Midwives

Eight MW with at least two years of working experience were sampled conveniently from each clinic of the two selected districts. Target population was five midwives per clinic per each district to make a total of twenty midwives. Convenience sampling is the sampling method that is used because the participants are readily available and easily accessible (Pilot & Beck, 2014). Midwives working at the selected study sites with at least two years of working experience were interviewed. Data saturation reached at fourth participant but the researcher continued to interview another four to make sure no new information emerged regarding the views of midwives regarding barriers for delaying PW and BFMs in seeking medical attention.

Inclusion criteria

- MW who worked at the sampled clinics

- MW with at least two years of working experience

3.5.2 Sample size

The most available participants were targeted in this qualitative approach. The sample size was not determined through formal sample size calculation as data collection continued until data saturation was reached; however, the more diverse the response, the more groups needed more information about the phenomenon (de Vos et al., 2017). The study used four samples per district as follows:

1. A sample for elderly women consisted of six focus groups discussions, first group had a total of six members, second group had six members as well, third group had only four members, fourth group had nine members, fifth group had six members and lastly group six had six members to make a total of thirty seven participants.
2. A sample of ten PW,
3. Another sample of five BFMs,
4. and a sample of eight MW.

The sample sizes from the two study sites are displayed in Table 3.5.

Table 3.5: Sampling size from the two selected study sites

Selected districts	Study site	Number of elderly women	Number of pregnant women	Number of breastfeeding mothers	Number of midwives
Vhembe	Musina	16 (focus group discussions)	5	3	5

Capricorn	Blouberg	21 (focus group discussions)	5	2	3
	Total	37	10	5	8

3.5.2.5 Data collection instrument

Researcher was the instrument to collect data. This study collected the main data using an unstructured interview with all four samples.

Unstructured focus group discussions for elderly women

FGDs were conducted with participants (elderly women) in rural villages of the Vhembe and Capricorn Districts. A total number of thirty seven participants from six different focus group discussions were purposively selected from the rural village and were interviewed at tribal authorities. Each elderly woman was labelled as Participants 1, 2, and 3. The purpose of this unstructured FGD was to gain information of a qualitative nature because of the interaction between the interviewer and group interviewees. In this study, FGDs were used to describe the roles of elderly women and explore the experiences of elderly women in participation in maternal health practices in rural areas regarding the perceived factors contributing to maternal mortality. The following questions guided the interview

- **Can you kindly share your roles in participation to maternal health practices about cultural practices?**

In-depth individual interviews for pregnant women

The in-depth individual interview was conducted with PW. This assisted the researcher in having descriptive information related to cultural practices that may lead to maternal mortality. The researcher again asked the PW to elaborate on some statements to get a clear meaning and avoid misunderstanding.

- **Can you please share the kind of information you received from elderly women?**

In-depth individual interviews for breastfeeding mothers

The in-depth interviews were conducted with BFM. This was intended to assist the researcher in collecting qualitative data on cultural practices that may lead to maternal mortality. The researcher asked BMs to elaborate on some statements to get clear meanings and avoid misunderstanding.

- **Can you please share the kind of information you received from elderly women since you were pregnant?**

In-depth individual interviews for midwives

The in-depth individual interviews were conducted with MW. MW play a vital role in assisting PW from the conception period up until the end of the postnatal period. As the main service provider at the healthcare facilities, MW assist the researcher with information related to indigenous practices that might delay PW and BMs in seeking medical attention. The interview was conducted with MW who conducts deliveries at the clinics.

- **Can you please share the causes that might delay pregnant women and breastfeeding mothers from seeking early medical attention?**

Personal interviews were intended to provide the researcher with the means of extracting information from individual interviewees when they reflected on their feelings, beliefs, experiences, and predicaments about the problem being researched. This can be linked to the interpersonal level of the SEMs. Interpersonal level of SEMs describes formal and informal relationship with other individual serving different roles in an individuals' life. In this study elderly women is a family member who play vital role to the life of PW and BFM, and as such midwives were interviewed to describe

their experiences that causes delay for a PW and BFM to seek early medical attention.

3.6 PRE-TESTING

Pre-testing is a commonly recommended effective method of improving the trustworthiness and credibility of qualitative data collection instruments and procedures (Hurst, Arulogun & Ovbiagele, 2015). Pre-testing usually enables the researcher to detect errors in language relevance and word ambiguity, which leads to discovering flaws in interview questions (Guest & MacQueen, 2008). In a qualitative study, pre-testing involves administering the interview to individuals with similar characteristics to the target study population to replicate how the data collection session was to be conducted (Rubin & Rubin, 2011). In this study, pre-testing provided a chance to revise the questions framed and procedures to ensure that appropriate questions were asked and that questions were to make participants comfortable and confident. In addition, the pre-test provided a chance to assess the probing skill of the researcher as it was likely to influence the information needed.

The researcher pre-tested the unstructured FGD with elderly women at local primary healthcare facility. One FGD was conducted with groups comprising elderly women of six members. Recruitment of participants was done through the assistance of midwives, the researcher visited the local health care facility in the morning, opportunity was given to the researcher to address the group of elderly women who came for collection of chronic treatment about the study. Appointment was done with participants aged 50 to 80 whose daughter or daughter in law delivered in the past five years that were willing and consented to participate. Permission to record the interview were sought. The interview was conducted in Tshivenda as it was the language used by participants as their mother tongue. The unstructured question guiding the interview was, kindly share with me, what are your roles in participation to maternal health practices?. The interview lasted about an hour. Collected data it was then translated from vernacular to English by language expert. Data was analysed following eight step of Tesch's method. The information was insufficient with regard to their role in

participation to maternal health practices, supervisor advice the researcher to first acknowledge the care and support offered by elderly women to encourage them to voice out everything about their roles.

The in-depth individual interviews were pre-tested with two PW and one breastfeeding women. The recruitment of participants and the interviews were done at the clinic, appointments made with the interviewee and consented to participate. Permission to record was sought as well. Interview was conducted to PW aged 20 to 35 who previously delivered a term baby and BFM's who came for postnatal check-up within six days of delivery. Unstructured question was as follows: kindly share with me, the kind of information given to you by elderly women regarding cultural practices? Interview lasted about thirty minutes. Data was collected in Tshivenda then translated to English by language expert. Data was analysed following eight step of Tesch's method. Results shared with the supervisors who advise the researcher to continue to collect data.

Another pre-test of in-depth individual interview was done with three MW to assess whether the relevant question should be asked. The recruitment of participants and the interviews were done at the clinic; appointments made with the interviewee and consented to participate. Permission to record was sought as well. Interview was conducted to midwives with at least two years of working experiences. Unstructured question was as follows: kindly share with me, what might be the barriers that causes delay for pregnant women and breastfeeding mothers from seeking early medical attention?. Interview lasted about thirty to forty five minutes. Data was collected in Tshivenda then translated to English by language expert. Data was analysed following eight step of Tesch's method. Results shared with the supervisor who advise the researcher to continue to collect data

The pre-tests were used to determine the feasibility of the research study so that the researcher could rephrase the instrument depending on the findings. The researcher can again refine and measure the study variables to meet research needs based on the objectives and purpose of the study (Gray & Grove & Sutherland, 2017). A pre-test was conducted with a sample that did not form part of the actual study in a different setting from the main study. Pre-testing was needed to assist the researcher in recognising the items that the participants failed to understand or whether the researcher missed the

important information needed to answer the research questions. After the pre-testing interview with each group, the researcher and supervisors updated one another regarding the process and research question. The research probing skills for each group of participants was refined accordingly to generate appropriate responses. Refer to annexure 6A.

3.7 PLAN FOR DATA COLLECTION

Data collection is gathering information that addresses a research problem (Pilot & Beck, 2017). Data collection is the precise, systematic gathering of information relevant to the research purpose or specific objective, questions, or hypothesis of the study (Burns & Grove, 2016). Data collection entailed the following preparation, how the research participant was chosen, the data collection instrument, and the role of the researcher.

- **Preparation**

This involves identifying and recruiting participants based on the inclusion and exclusion criteria. Elderly women were recruited through tribal authorities or the South African National Civic Organisation (SANCO) because they know community stakeholders within the village. The researcher was given slot at the chief skraal the day in which there was a gathering of community to address certain issues. The researcher explains to the group of elderly women about the study. Elderly women aged 50 to 80, whose daughter or daughter in law delivered in the last five years and who were willing to participate gave consent, appointment was then made with them to meet at the chief skraal, date and time to meet was set. The researcher went on to identify an accessible and reasonable venue which was a distance from distractions for the focus group. With the individual interviews, the researcher used clinics where each interviewee availed herself. The researcher visited the clinic on the day scheduled for BANC, with the assistance from the midwives at the clinics, the researcher was given an opportunity to recruit PW, arrangements of venue, time and date for interview was set with PW aged 20 to 35 who previously delivered a full term baby.

BfMs were recruited on the day for postnatal check-ups within six days following delivery. Information regarding the study was read to them, appointments were made to those who were willing and consented to participate. Permission to record during data collection was sought.

Appointments and recruitment for MW with at least two years of working experience were made at the clinics, information about the study was explained, midwives who were willing to participate consented and permission to record was sought. The researcher's contact details were given to the clinic managers so that the researcher could be contacted in case of changes in the arrangements.

- **Data collection plan**

Planning to conduct focus groups and in-depth individual interviews was done with tribal authorities for the specific sites where elderly women were to be recruited and managers of the clinics where the PW attend the ANC services. The researcher utilised the first six to ten minutes of the discussion to build trust and mutual relationships with the participants. During this time, the researcher welcomed the participants, introduced and gave an overview of the study, set ground rules, and reminded the participants about the duration of the session. This study observed the COVID-19 regulation outlined by the government to prevent and combat the spread of COVID-19 among the interviewer and interviewee. The study ensured that all the participants in both focus group and in-depth individual interviews maintained social distancing of at least 1,5 to 2m apart, wore masks covering the nose and mouth, sanitised hands, and avoided touching each other. The meeting area was sanitised before meeting and patients were asked if they had symptoms of COVID-19 (i.e., a hot body). If reported, the patients would be advised to consult a healthcare worker and be excluded from the study. The researcher utilised the time to collect the participants' biographic information, which assisted the researcher during data analysis.

The researcher used a qualitative approach to obtain data from the participants. A research assistant was needed and given thorough training regarding the qualitative data collection method. The researcher collected data from the elderly women

describing their roles in participating in maternal health practices and then explored the experiences of elderly women regarding the promotion of maternal health in Limpopo Province by conducting a FGD with them. The researcher went on to collect data from PW and BMs exploring the experiences of PW regarding the utilisation of healthcare facilities and MW.

- **Data collection process**

Arrangements were made with clinic managers and traditional authorities prior to data collection to inform them about the study and the informants. The researcher conveniently selected the informants, those who were readily available, provided they met the criteria. A written information sheet and consent forms was read to elderly women to obtain consent. The forms were designed in such a way that the validity of the study and the research ethics committee's requirements were met. Anonymity and confidentiality were ensured, and the participants were told that the information was useful for this research project. Focus group and in-depth individual interviews were conducted in a language they understood (i.e., Tshivenda, Xitsonga or Sesotho). FGDs took at least 1 to 2 hours to complete and the language used was Tshivenda and Sepedi as it was participants mother tongue. Researcher is a multilingual, poses knowledge of both language used to collect data. In-depth-individual interviews took 30 to 45 minutes. the following central questions were posed to the participants:

1. For elderly women, can you kindly share with me your roles in participation to maternal health practices?
2. For PW and BFM, can you please share with me the kind of information you receive from elderly women?
3. For midwives, can you please share with me what might be the causes that delays PW and BFM from seeking early medical attention?

The above central questions were followed by probing and follow-up were asked for clarity, a paper and pen were used to take field notes, and a voice recorder was used

to record the information the researcher may miss when writing after participants gave permission.

For focus group discussions(elderly women) data saturation was reached at the fourth group discussions as there was no new information coming out, however, the researcher continued up to add another two FDGs to make a total of six FDGs to ensure that no new information emerged. The participants gave same continual information regarding the roles of elderly women in participation to maternal health practices

For the in-depth individual interview (PW) data saturated at the seventh participants, however the researcher went on to add three interviews to check if there is no new information emerged and with in-depth individual interview (BFMs) data saturated at the third participants but the researcher continued with interview to add another two to ensure no new information emerged, however, the participants gave the same continual information on the kind of information elderly women gave to PW and BFMs regarding cultural practices. For the midwives data saturated at the fifth participants but the researcher went on to interview another three participants to ensure that no new information emerged. The participants gave same continual information regarding the barriers delaying pregnant women in seeking early medical intervention. The interviews were then transcribed verbatim into English by language expert and analysed.

- **The role of the researcher**

The researcher and the research assistant were the main research instrument for data collection. They used effective communication skills to facilitate the interview, which entailed: observing, interviewing, recording, analysing, and interpreting what the participants said as faithfully as possible (Babbie, 2014; de Vos, 2012). The researchers started by establishing rapport and displaying an attitude of unconditional acceptance, respect, empathy, honesty, and openness. They appeared relaxed and as natural as possible. The researcher utilised the following communication techniques during the interview (de Vos et al., 2017):

- **Active listening:** the researcher listened carefully to the response of the participants, paying attention throughout and avoiding distraction. This enhanced the quality of the interview.
- **Probing questions:** were asked as a follow-up to increase the richness of the data and allow participants to give more clarity.
- **For minimal verbal response:** the researcher displayed minimal verbal response, evidenced by saying, “mmm, yes, I see”, and occasionally nodding her head. This was intended to encourage the participants to freely describe their roles and experiences in promoting maternal health
- **Clarification:** the researcher sought clarity on unclear statements to avoid assumptions and jumping to conclusions.
- **Paraphrasing:** the researcher rephrased clearly and concisely what had been said to convey to the participants that she was with them and understood everything that would be explained.
- **Reflective summary:** encompasses participants' ideas, thoughts, and feelings verbalised to see if you understand what the participants were saying. The researcher repeated the statement as stated by the participants in a question form for the participants to expand more on the specified points. The researcher summarised the responses to shorten the core of the participant's statements.

3.8 PLANS FOR DATA MANAGEMENT AND ANALYSIS

3.8.1 Data management

When reporting the collected data, the researcher did not use names or participants' identities, but codes and pseudonyms. Interview recordings will be stored on compact

discs (CDs) for the period stipulated by the policy of the University. After transcription and data analysis, all recordings were deleted from the recording machine. At the end of the study, the researcher transmitted all soft copies of the interview transcripts and the thesis to the university. The researcher kept a duplicate copy in a locked closet that no one could access. Each softcopy of the transcript was password-protected on a laptop and cloud.

3.8.2 Analysis

Data analysis involves reducing, organising, and giving meaning to the collected data (Burns & Grove, 2016). The aim of analysing data was to sort raw data obtained during data collection and organise it in a manner that themes or categories that emerge from the data can address the research problem (Creswell, 2014).

For this study, manual data analysis was guided by Tesch's steps described by Creswell and Cresswell (2017). This involved transcribing and translating information from the tape recorder/audiotape into English from the vernacular in written words. Trustworthiness of translation was ensured as it was done by language expert. After transcribing, the researcher repeatedly read each transcript to familiarise herself with the data, simultaneously sorting the similar and different ideas. Themes were derived from the probed questions during the interview sessions and data analysis. Finally, themes were developed and refined. Tech's eight steps in the coding process were followed during data analysis, as described in Creswell (2014) and summarised below.

Step 1: Get a sense of the whole

The researcher scrutinised all the manuscripts and listened attentively to the audio tape to get a sense of the whole. The researcher repeatedly played audio tapes with interview conversations to ensure that the correct information was transcribed. Data were transcribed into English exactly as said by participants. The researcher analysed data and wrote notes as an impression came to mind.

Step 2: Pick one document

The researcher chose the shortest and most thought-provoking document from the transcribed interview. The researcher read through it repeatedly, analysing its underlining meaning that came out and wrote on the margin, then later used these to group similar ideas together.

Step 3: Clustering similar topics together

The researcher listed all the ideas, and those that were similar were clustered together. Then ideas were further divided into columns of major ideas, unique ideas, and leftovers. Leftovers were put aside for future reference. Different colour pens were used to simplify the task.

Step 4: Abbreviation of topics as codes

Topics were abbreviated as codes and written next to the appropriate text segment. The researcher then observed the data organisation to check if new categories or codes emerged.

Step 5: Describe the topics

The researcher used descriptive wording for the topics and converted them into categories, themes, and sub-themes. The researcher went on to reduce the total list of categories by grouping topics that relate to each other and then drawing lines between the categories to show interrelationships.

Step 6: Abbreviate categories

After going through the codes several times, the researcher finalised the abbreviations for each theme and alphabetised the codes, ensuring that all codes were noted.

Step 7: Assemble all the data

Data material belonging to each other was assembled, and preliminary analysis was done. These made it easier for the researcher to develop the themes and sub-themes based on the grouping.

3.8.3 Literature control

After data analysis, roles and experiences of elderly women in participation in maternal health and experiences of PW and BMs regarding the utilisation of healthcare facility and MW on the causes delaying PW and BMs from seeking early medical attention will be identified and literature control will be done related to study findings.

3.9 MEASURES TO ENSURE TRUSTWORTHINESS

The researcher ensured trustworthiness in the following ways:

3.9.1 Credibility

Credibility refers to confidence in the truth of the data and interpretations of data (Pilot & Beck, 2017). The researcher ensured that the participants were identified and described accurately to ensure credibility. A trusting and mutual relationship was established between the interviewer, research assistants, and participants by creating an environment where the participants would feel free to express themselves in their home language. The researcher put aside the information regarding the cultural practices during pregnancy, labour, and puerperium to allow the participants to give as much information as they could. The prolonged engagement was ensured by visiting the participants repeatedly to ensure that more time was invested for about 1 to 2 hours for the focus group and 30 minutes for individual interviews. Member checks were done to ensure that the participants recognised the findings as true and accurate to their experience. The research supervisors were involved throughout the study's planning until the final stage of report writing.

3.9.2 Dependability

Refers to the stability and reliability of the data over time and conditions (Pilot & Beck, 2017). The strategy to collect focus interview data was intended to ensure the results were similar because the study was repeated with the same subjects in a similar context. In addition, the researcher used a co-coder to ensure the consistency of findings.

3.9.3 Confirmability

Refers to objectivity or potential for congruence between two or more people about the data's accuracy, relevance or meaning. It concerned establishing that data represented the participants' information and that the inquirer did not invent the interpretation (Pilot & Beck, 2017). The researcher ensured that participants and peers discussed the collected data and reached a meaningful and relevant agreement to the study by checking facts and following questions. An audio recorder was used during data collection, which assisted the researcher in transcribing and minimising bias.

3.9.4 Transferability

Refers to the extent to which study findings can be transferred to or have meaning to others in similar situations in other settings or groups (Pilot & Beck, 2017). The researcher recorded information on the audio tape to keep the data for people who might need it in order to permit judgment.

3.9.5 Authenticity

Polit and Beck (2017) refer to authenticity as the extent to which researchers display fairly and faithfully the range of realities that emerge in a research report to show the participants' roles and experiences. This was attained by outlining a description of research findings with participants' quotes, involving the participants in prolonged engagement, audio-taping, and verbatim transcription.

3.10 ETHICAL CONSIDERATIONS

Ethical principles are essential when researching in order to protect the public and the rights of research subjects. The researcher ensured accountability by observing the following codes of ethics:

3.10.1 Permission to conduct the study

The University of Venda Ethics Committee gave approval and issued ethical clearance upon assessment of the research proposal. Permission to collect data was obtained from the DoH, and written permission was obtained from district services, tribal authorities, and participants.

3.10.2 Protect the participants from COVID-19

This study observed the COVID-19 regulations outlined by the government to prevent and combat the spread of COVID-19 among the interviewer and interviewee. The study ensured that all the participants in the FGDs and in-depth individual interviews maintained social distancing of at least 1.5 to 2m apart, wore face masks covering the nose and the mouth, sanitised hands, and avoided touching each other. Participants' temperatures were checked before entering the interview area, which was sanitised beforehand.

3.10.3 Informed consent

Information concerning the purpose of the research study was explained, including the data collection procedures. Participants were also required to give verbal or written consent. This was done to ensure voluntary participation in the study after being informed that the subjects have the right to withdraw their participation in the study at any stage without prejudice. The participants were made aware that the researcher

could process the collected data in a computerised system and that the study results were anonymously processed into a study report. Opportunities to ask questions were offered to the participants as a way of preparing them for participation in the study. The findings related to the participant interviewees were made available to participants.

This study observed COVID-19 regulations to protect the participants from contracting the virus, particularly elderly women, as they are more vulnerable to infection. The measures followed involved sanitisation of the meeting area prior a meeting, taking temperatures before entering the venue (if participants had measures of 38 degree Celsius and above, they were not allowed to enter the area, and counselling was offered), sanitising of hands, wearing of face mask covering the nose and mouth, maintaining social distancing of at least 1.5 to 2m, and avoid handshaking.

3.10.4 The right to self-determination

The right to self-determination was based on the ethical principle of respect for a person and that humans can control their destinies (Gray, Grove & Sutherland, 2017). This was ensured by permitting participants to participate or withdraw from the study at any time without any harm. In case the participants decided to withdraw after data analysis stage, data will be extracted from the study findings checking the codes of participants, however, the same information will still remains which was said by other participants as the study reached data saturation.

3.10.5 Coercion

This occurs when the researcher involves the participants in a threat of harm or an excessive reward to obtain obedience (Gray, Grove & Sutherland, 2017). The researcher was conscious of the position she holds as a nurse to avoid any form of coercion that may occur. In addition, there were two research assistants to assist in collecting data to avoid any violation.

3.10.6 Right to anonymity and confidentiality

Anonymity occurs when the researcher can hardly link a subject's identity with her or his responses (Gray, Grove & Sutherland, 2017). The researcher ensured anonymity and confidentiality were maintained by avoiding the use of the real names of participants during data collection. In case of focus group discussions anonymity was ensured by explaining to the group that information that is going to be shared here should remain with us and not to be shared with someone who is not part of the discussions. Instead, numbers were used when analysing and discussing the data. Confidentiality is the researcher's responsibility to manage information or data collected to ensure that it is kept private from others (Gray, Grove & Sutherland, 2017). The researcher ensured that data was made available only to persons directly involved with this study. The study was to be published for the benefit of the researcher and the DoH. A master list of participants and matching the numbers was kept in a safe place to preserve confidentiality.

3.10.7 Principle of justice

This occurs when the subjects have the right to be treated equally and not overexposed to risks (Gray, Grove & Sutherland, 2017). Therefore, the researcher selected the participants fairly and treated them fairly. Furthermore, the researcher maintained justice by explaining the inclusion and exclusion criteria logically.

3.11 PHASE 2: DEVELOPMENT OF A TRAINING PROGRAMME

Upon the completion of data analysis, training needs for elderly women in participation in maternal health practices were identified. Therefore, phase 2 of this study comprised training programme development. In developing the training programme, the researcher used the theoretical framework of the practice-orientated theory outlined by Dickoff et al., (1968) to form the basis of the development of the training programme by Kolb's experiential learning theory. There are six elements of the practice-orientated theory described as the agent, recipient, context, process,

dynamics, and outcome, which enabled the researcher to link the study's findings to the body of knowledge and to conceptualise the findings in practice. These elements served as a cornerstone for the development of a training programme for elderly women in participation in maternal health practices.

The training programme was developed following Kolb's four learning cycles to achieve the purpose of the study using the theoretical framework outlined by Dickoff et al., (1968).

3.12 THEORETICAL FRAMEWORK THAT FORMS THE BASIS FOR THE DEVELOPMENT OF THE TRAINING PROGRAMME

The theoretical framework that formed the basis for the development of the training programme was assisted by the elements of the practice-orientated theory outlined by Dickoff, James & Wiedenbach (1968). The characteristics of the six elements are briefly described below and were fully explained and applied during data analysis.

Agent

Who or what performs the activity? An agent is any person whose activity leads to the realisation of the goal (Dickoff et al., 1968).

Recipient

Who or what is the recipient of the activity? Recipients are those who receive action from agents and benefit from the activity (Dickoff et al., 1968).

Context

In what context is the activity performed? The context is viewed from the aspect of the matrix of activity; it is seen concerning other things, including persons and other activities, and to see the interrelation of these other factors as constituting an organism, unity, or total context of activity (Dickoff et al., 1968). Furthermore, the authors refer to the 'context' as the setting, location, physical structure of the ward or

unit, hospital, or medical centre, time, space, or structure that constitute different elements of the situation in which the activity occurs (Dickoff et al., 1968).

Process

What is the guiding procedure? The process involves the steps to be taken towards accomplishment. The process aims at providing sufficient information to enable the activity to be carried out. It safeguards the agent, recipient, and institution in providing knowledge and lessens liability to criticism (Dickoff et al., 1968).

Dynamics

What is the energy source of the activity? Dynamics involve the power sources for that activity. These energy sources motivate agents to pursue their activity without getting discouraged (Dickoff et al., 1968).

Outcomes

What is the endpoint of the activity? This involves defining an activity from the perspective of an endpoint or its accomplishment (Dickoff et al., 1968).

3.13 TRAINING PROGRAMME DEVELOPMENT

A programme is a set of coordinated projects implemented to meet specific objectives within defined time, cost, and performance parameters (International Federation of Red Cross & Red Crescent Societies, 2010). The programme represented the purpose of the study in a manner that it should strive to attain acceptable practices; it will not substitute one set of services (healthcare services) for another (cultural practices). This programme will serve to create an environment in which the needs of PW are fully considered, and support from elderly women is achieved.

The programme was developed in an interactive manner using Kolb's experiential learning cycle and approaches outlined in Chinn and Kramer (2019) and Walker and Avant (1995), namely: analysing, derivation, and synthesising. Through deductive

analysis, synthesis and derivation, relational statements concerning each element of practice theory in Dickoff et al., (1968) made to make meaningful claims about the programme. This is briefly discussed below.

Formulating criteria for concepts

The concept emerged gradually and continuously as definitions, various cases, other sources, and varying contexts and values will be considered. The criteria were refined so that they reflected the intended meaning. The criteria for the concepts used in the programme were described to enhance meaning.

Structuring and contextualising the training programme

This involved establishing systemic linkages between and among concepts resulting in statements that informed the programme. The choice of approach depended on the purpose for developing the training programme, what the researcher already knew or assumed to be true and the researcher's underlying philosophical ideas about the nature of nursing knowledge. The interrelationships between the data clusters guided the researcher's structure for creating the training programme.

Identifying and defining concepts

In structuring the training programme, the researcher identified concepts that formed the basis for the programme. These concepts emerged from the data that were collected and the literature control. The researcher avoided abstract concepts as they carried a broad meaning and gave a wide range of experiences. In selecting concepts, the researcher considered the relationships among concepts to guide her on which concepts to research. These relationships were based on prior research, existing programmes, if any, philosophies and researcher's personal experience.

Identifying assumptions as part of the programme

Assumptions are underlying issues that are presumed to be true. They are not intended to be empirically tested for soundness, but they can be challenged philosophically and may be investigated empirically.

Clarifying the context

The relationships among concepts within the context of the study will be put in place.

Designing relationship statements

This study discussed relationship statements that describe, explain or predict the nature of the interaction between the programme concepts. The relationship between identified concepts was described. A detailed explanation of how concepts interact within the programme was given later when the research report was written after data collection and analysis.

Programme description

Description of the programme was facilitated by the following questions: What is the programme's purpose? How are concepts defined? What is the nature of the relationships? On what assumptions is the programme built? What is the structure of the programme? And what is the purpose/procedure of the programme? (Chinn & Kramer, 2019).

Overview of the programme

The researcher highlighted all elements and relational statements concerning the training programme for elderly women in participation in maternal health practices in rural areas of Limpopo Province, South Africa. A schematic representation was made to show the main concepts and the related statements to construct the programme.

The purpose of the programme

The programme aims to promote women's health during pregnancy, labour and puerperium, thereby reducing maternal mortality in the people of Limpopo Province, South Africa.

Structure of the programme

The researcher described the assumptions on which the programme will be based, the main concepts and sub-concepts, the relational statements deduced and the nature of the structure. The description of nature made it possible to follow the programme's reasoning in its entire graphic representation, demonstrate nature, and how colours would be selected, and assist in emphasising certain aspects.

Process of the programme

The adapted programme guided the description of the procedure to facilitate the argument among elderly women regarding their roles and experiences in participation in maternal health practices to reduce maternal mortality (Chinn & Kramer, 2019).

3.14 PROGRAMME VALIDATION

According to Chinn and Kramer (1999), once the programme was described, the researcher posed critical questions to provide information on how the programme might serve its purpose. In addition, the researcher had insight into how the programme will be used and how it might be improved further.

- How clear was the programme? Clarity
- How simple was the programme? Simplicity
- How general was the programme? Generality
- How accessible was the programme? Accessibility
- How important was the programme? Applicable

According to Chinn and Kramer (1999), clarity refers to how well the theory can be understood and consistently conceptualises ideas. However, authors refer to semantic clarity and consistency in rstanding the the concepts' theoretical meaninging. Structural clarity and consistency reflect the collaboration of concepts within the whole programme.

Semantic clarity

The researcher defined concepts using common terms within the health profession.

Semantic consistency

The researcher used concepts in a way consistent with the definition of concepts. Furthermore, the researcher used basic assumptions to clarify the meaning of other programme components.

Structural clarity

The researcher described elements of structures in the programme and their relationships to provide a clear understanding of how the structures integrate.

Structural consistency

The researcher consistently used different structures in the programme to guide the discussion of issues and serve as a conceptual map that enhances clarity of the meaning of other programme components.

How simple was the programme?

Chinn and Kramer (1999) refer to simplicity as the minimal number of elements within the descriptive category, concepts, and their relationship.

How general was the programme?

According to Chinn and Kramer (1999), generality refers to the breadth of scope of concepts and purpose within the programme.

How accessible was the programme?

According to Chinn and Kramer (1999), accessibility addresses the extent to which concepts within the theory can be identified and how the expected outcome can be achieved.

How important was the programme?

According to Chinn and Kramer (1999), the importance of the programme depends on the professional and personal values in nursing practice, education, and research.

CHAPTER 4

PRESENTATION OF STUDY FINDINGS AND DISCUSSION

4.1 INTRODUCTION

The previous chapter discussed the study's research design and methodology, culminating in data collection. This chapter focuses on data analysis, presentation, and discussion of results. Data were analysed using Tesch's eight steps of data analysis, presented in Chapter 3. The findings of this study are presented in three sections. Section 1 presents the findings from elderly women; section 2 presents the findings from PW and BMs; and section 3 presents the findings from MW. Each section starts with demographic information of the study sample, followed by themes and sub-themes that emerged from the data collected. These themes and sub-themes are discussed in detail with direct quotes from the transcript to enrich data. The literature discussion follows and serves to confirm the findings.

4.2 SECTION 1: PRESENTATION OF FINDINGS FROM ELDERLY WOMEN

This section presents and discusses the findings from elderly women, the participants from villages, and the study site. The findings pertain to the data obtained from FGDs.

4.2.1 Demographic information of study sample

The demographic information focuses on the age, language, and religion of the sample participants used in the study. Tables 4.1, 4.2 and 4.3 depict key demographic information.

Table 4.1: Age description of participants

Participants	Criterion	Characteristics	Number	Percentage
Elderly women	Age	50-59	1	3%
		60-80	35	97%
		Total	36	100%

The sample consisted of 37 elderly women (focus group) who offered care and support to PW at home. The results in Table 4.1 show that most participants [35 (97%)] were aged between 60 and 80 years, and only one participant was between 50 and 59. These results show that the sample used in the study consisted mostly of the right participants who could be safely described as elderly women and suitable to provide the right information about the research problem.

Besides age, this study considered language preferences among elderly women when providing services. Table 4.2 shows the composition of the sample by language spoken.

Table 4.2: Language description of participants

Participants	Criterion	Characteristics	Number	Percentage
Elderly women	Language	Tshivenda	27	75
		Sepedi	9	25
		Total	36	100%

According to the results, 27 (75%) respondents indicated Tshivenda as their home language preference, and nine (25%) preferred Sepedi. These findings show that most participants preferred to use Tshivenda over Sepedi when providing services to PW and BFM.

The results on religious beliefs among elderly women are shown in Table 4.3 below.

Table 4.3: Religious description of participants

Participants	Criterion	Characteristics	Number	Percentage
Elderly women	Religion	Christianity	16	44
		African religion	20	56
		Total	36	100%

The results suggest that most participants [20 (56%)] believed in African religion, and approximately 16 believed in Christianity. These findings show a fair distribution of the two religions among the sample of elderly women though most of the participants indicated African religion.

The results of elderly women from the six villages are shown in Table 4.4.

Table 4.4: Number of focus group discussions

Focus group number	Number of elderly women per group	Percentage
No 1	6	16
No 2	6	16
No 3	4	11
No 4	9	24
No 5	6	16
No 6	6	16
TOTAL	37	100%

Out of the six groups of focus group discussions, group 4, had the highest number of participants [9 (24%)], and group three had the least participants [4 (11%)]. Other groups had an average of [6 (16%)] participants. On average, the distribution of participants was six elderly women per village. Five groups were well represented,

with the except of group three, whose number of participants was below the average of six participants per village.

4.3 THEMES, SUB-THEMES AND CATEGORIES FROM ELDERLY WOMEN

This section presents findings from FGD on the roles of elderly women in maternal health practices in Limpopo Province. The findings are presented in Table 4.5 as themes and respective sub-themes. Interpretations for each theme and sub-themes is provided in the respective sub-sections.

Table 4.5: Themes, sub-themes and categories

THEME	SUB-THEMES
1. Advice given to PW by elderly women	Dietary pattern
	Sleeping pattern
	Physical appearance
	Anti-labour measures
2. Practices based on religion	Practices during the pregnancy period
	Practices during the labour period
	Practices during the postnatal period
3. Support given by elderly women to PW and BMs	Support during the pregnancy period
	Support during the postnatal period
4. Needs of elderly women in participation in maternal health	Need for training
	Need for knowledge

practices

4.4 FINDINGS OF THE STUDY AND LITERATURE CONTROLLED DISCUSSIONS

The study finding is based on the themes identified during the textual analysis. Each theme is discussed separately, following the advice given to PW by elderly women, practices based on the beliefs of elderly women, and support given by elderly women to PW.

4.4.1 Theme 1: Advice given to pregnant women by elderly women

Culturally, elderly women do have a role in participation in maternal health practices as family caregivers were revealed (Begohn, Adei & Mireku, 2016). This emerged from the findings indicating advice they gave to PW and BFMs at home. Four sub-themes suggesting advice were identified: eating patterns, sleeping patterns, physical appearance, and anti-labour measures. The findings are presented in Table 4.6 below.

Table 4.6: Advice given to pregnant women by elderly women

THEME	SUB-THEMES
1. Advice given to pregnant women by elderly women	Dietary patterns Sleeping patterns Physical appearance Anti-labour measures

Each sub-theme under Theme 1, that is, advice given to PW by elderly women, is discussed in subsequent sub-sections.

4.4.1.1 Eating pattern

Findings from FGDs showed that elderly women played an essential role in promoting maternal health practices through their direct participation in providing care and

support to PW. The findings revealed that elderly women give advice to PW regarding the food taboos to adopt during their pregnancy period, and it is believed that if followed, there would be a good pregnancy outcome. For instance, participants who attended the FGDs articulated some of their eating habits that they advise as follows:

“...She will experience problems like when she eats cold food when the baby comes instead faeces comes out first because of eating cold food....” (FGD3, Participant 4)

“A pregnant woman must not eat cold food or cold porridge and if she wants to eat cold porridge she must go to the toilet with the piece of cold porridge before she answers to the call of nature; she must first eat that cold porridge then answer to the call of nature....” (FGD6, Participant 3)

Another participant alluded to the advice given when she expressed that

“Breastfeeding mothers are not supposed to drink cold water, they must take a legala la mollo (burning charcoal) and put it on a cup to warm cold water because cold water causes pain on the spine....” (FGD3, Participant 9)

As the caregivers of PW and BFMs in the family, elders have a lot of advice for pregnancy and childbirth. They are shaped around culture, so it becomes their way of living and is passed from one generation to another. For example, the findings from this study revealed that drinking cold water causes pain in the spine of BFMs, whereas eating cold porridge is associated with passing faeces first during labour before giving birth. This finding concurs with the study conducted by Mogawane (2014), who states that PW should avoid cold food as it is associated with miscarriage and bleeding. Similarly, in a study conducted in Limpopo, South Africa, Seopa (2021) found that a pregnant woman is not supposed to eat cold food as it is associated with extreme shivering during labour. However, eating cold food is prohibited for PW.

Another participant highlighted that PW were not supposed to eat boiled eggs as it is associated with painful and prolonged delivery. This is supported by the quote below:

“She must not eat boiled eggs. When she goes for delivery, that egg will close the way for the baby in such a way that instead of coming the baby first comes eggs (unruptured membranes)” (FGD3, Participant 2)

Participant 7 supported the view expressed by Participant 2:

“Instead of the baby coming out, the egg prevents the water from breaking and it will make it difficult for the baby to be delivered....” (FGD3, Participant 7)

The study found that some of the advice given to PW by elderly women was beneficial in preventing complications likely to arise when giving birth. This finding illustrated a cultural perspective of elderly women who believe that eating boiled eggs is associated with difficult delivery as it would prevent the rupture of membranes that cause a delay in the delivery of the baby. The finding is confirmed by Seopa (2021), who states that elders at home are regarded as the most qualified and full of wisdom, so they restrict eating of eggs as it causes delay during childbirth. Such cultural beliefs held by elderly women are supported by a study conducted in Botshabelo, Free State province, South Africa, by Kortman (2020). The study purports that eggs are some of the food that PW should not consume as they are associated with painful labour. This is in contrast with M’soka, Mabuza and Pretorius (2015), who conducted a study in Zambia. They state that most women were concerned about eating eggs, which can cause the baby to be born without hair, according to their belief. However, WHO (2016) states that the Vitamin D in eggs is associated with the prevention of rickets in a neonate and assists in building strong teeth and bones of the mother. Similar ideas are expressed by Lang-Balde and Amerson (2018), who opine that foods believed to be avoided during pregnancy are rich sources of protein and iron, which can cause excessive salivation in the infant, increase susceptibility to epilepsy and macrosomia, leading to difficult labour. Although the advice on eating habits given by elderly women is important, inadequacies and inaccuracies due to cultural beliefs raise a dire need for elders to be trained on the type of food that can benefit PW and their unborn babies.

Furthermore, elderly women expressed that they give advice that discourages PW under their care from eating a lot of food as this would cause the baby to grow big. This causes delivery complications which would cause PW to give birth through the caesarean section. Four participants expressed the following:

“When my daughter-in-law reports that she missed her period, I discourage her from eating a lot of food, so I will measure the amount of food she has to eat and hide the remaining. I do this to prevent a mother from giving birth to a big baby....” (FGD1, Participant 2)

“She is supposed to eat a small amount of food, if she ate too much amount of food the baby will grow big and it will be difficult for her to give birth, so nowadays they don’t care they just eat the food....” (FGD4, Participant 4)

“She must eat a small amount of porridge for the baby not to grow inside and become big because the woman can experience difficulties when giving birth, where she will have stitches because the baby will be big and not coming out....” (FGD4, Participant 4)

“Pregnant woman must not eat too much of food to prevent big abdomen because the woman will not be able to deliver, it will be hard for her....” (FGD3, Participant 5)

This finding is similar to a study conducted in Ethiopia, which highlighted that food taboos during pregnancy were considered nutritionally significant. Hence, they differ in the reason attached to them, causing plastering to the foetal head, which results in a difficult labour (Tsegaye, Tamiru & Belachew, 2021). In agreement, Masele (2018) established that food taboos like milk and milk products should be avoided as they would stick on the fetal head and face of the foetus resulting in delivering a baby with an ugly face. In contrast, Ramulondi, de Wet and Ntuli (2021) established that food taboos and practices can expose women and the foetus to poor nutrition but can be beneficial as some food taboos protect women from unhealthy eating behaviours.

Some of the foods that the discussions revealed is that PW should not eat hot food or drink hot tea. If consumed by PW, this would cause them to give birth to babies with birthmarks. For instance, the participants articulated:

“Pregnant women must not eat hot foods if she eats hot food or drinks hot tea, she will give birth to a baby with a birthmark (livhadzi litswu) for the rest of her/his life...”
(FGD4, Participant 3)

“When I have a pregnant woman at home I tell her some news, you must not eat hot porridge and the other thing we put hot porridge on the (tshiaramo) lace next to the roof with the aim of cooling the porridge and give her to eat when it is cold....”
(FGD4, Participant 4)

“She must not eat hot porridge to prevent burns on the unborn baby and to avoid the baby to be born with birthmark...”
(FGD6, Participant 2)

“Yes, I want to add, she must not eat hot food....”
(FGD6, Participant 4)

“Pregnant woman is not supposed to eat and drink hot food, even tea is supposed not to be hot....”
(FGD5, Participant 2)

This finding concurred with a study conducted by Ramulondi et al., (2021) in the northeastern part of KZN, South Africa. They posited that some food affects the skin of the fetus while some cause the baby to be born without hair. In contrast, Diana, Rachmayanti, Anwar, Khomsan, Christanti and Kusuma (2018) established that cultural food restrictions and taboos exist to protect and save the life of both mother and the unborn baby. However, Sahin and Sahin (2018) oppose the view of food restrictions in pregnancy due to insufficient nutrients for both the mother and the foetus. In this context, there is a need for this study to develop a training programme

for elderly women in participation in maternal health to improve the health of PW and the foetus.

4.4.1.2 Sleeping pattern

The findings of this study indicate that elderly women have a cultural role to play, that influences the sleeping patterns of PW and BMs. The findings revealed that elderly women gave advice that discouraged PW from sleeping during the day. These findings show that elderly women believed that sleeping during the day could cause the baby to imitate the mother's previous sleeping patterns, which would prolong the delivery time as the baby would sleep along the way. Sleeping of the baby along the way is associated with prolonged birthing time leading to the mother being assisted to give birth through a caesarean section. The following attestations from focus group participants support the above notions:

“When I have a daughter-in-law who is pregnant here at home, I tell her that you must not always sleep during the day. You will experience bad things (masia ndo itwa a si avhudi). When it is her time to give birth and when the baby is about to come, the baby will sleep doing exactly what the woman did, isn't it she was always sleeping so even the baby will sleep. Yes, there is a problem because when the baby sleeps, what can the doctors do? They must just perform an operation....” (FGD4, Participant 1)

“When I have a pregnant woman at home, I tell her that she must not sleep during the day because when the time has arrived for giving birth, she will take long before she gives birth, the baby will sleep as well like what the mother was doing during pregnancy state....” (FGD5, Participant 1)

“If she sleeps during the day, she will take long before she gives birth because the baby will sleep as well and it will delay the process....” (FGD5, Participant 6)

“I want to add that if she sleeps during the day even the baby will sleep and she will take long to give birth to an extent that the doctor will take her for operation...” (FGD5, Participant 2)

“I am supporting what was said that if a pregnant woman sleeps during the day when it is time to give birth she will take longer because the baby will be sleeping as well like what the mother was doing and by so doing time of giving birth will be longer...” (FGD5, Participant 3)

This finding is consistent with that made by Kortman (2020) in a study conducted in Botshabelo, South Africa, which states that PW were discouraged from prolonged sleeping to avoid prolonged labour. However, Beinempaka, Tibanyendera, Atwine, Kyomuhangi, Kabakyenga and McDonald (2015) as cited by Masilo (2022) came to a different conclusion. Beinempaka et al., (2015) found that elderly women in Ugandan communities, barred PW from planting potato stems because they associated the stems with prolonged labour due to the umbilical cord wrapped around the neck of the baby. The main idea behind this was to prevent PW from experiencing difficulties and prolonged labour that may lead to caesarean section.

One key misfortune of giving birth through the caesarean section, from elderly women’s perspectives, is that they believe that the caesarean section can potentially limit the number of children that women could have. Thus, elderly women play a key role in fostering maternal health practices among PW. The discussions also revealed that elderly women instruct PW to wake up early in the morning to prevent difficulties from occurring during delivery. Regarding waking up early, one participant who attended the focus discussion group shared:

“A pregnant woman must wake up early to prevent people from stepping on (kgatheletša) her. When the baby comes, will sleep along the way....” (FGD3, Participant 3)

This finding is similar to Riang'a, Nangulu and Broerse (2018), who articulated that oversleeping and laziness in Kenyan PW were associated with prolonged labour, which would be caused by the baby who would be sleeping during birth time. In support of the findings, in a study conducted in Botshabelo, South Africa, Kortman (2020) stated that PW were discouraged from prolonged sleeping to avoid prolonged labour. The idea behind this is to prevent PW to experience difficult and long-lasting labour that leads to caesarean section.

4.4.1.3 Physical appearance

The physical appearance of PW and BMs is another area in which elderly women were keen to give advice. The study found that elderly women advised PW to stop plaiting hair. There is evidence from the attestations made by participants that elderly women believed that when a pregnant woman plaits her hair, she closes the way for the baby, thereby resulting in a painful and prolonged delivery. The findings further revealed that elderly women advised PW to desist from tying notes on clothes as the baby would be tied as well, with the consequences of losing the baby during delivery. This was expressed by participants who said:

“Pregnant woman is not supposed to plait, isn't it the pregnant woman of today plait? They close the way of the baby when they plait, so when she is at term she must unplait or cut the hair....” (FGD3, Participant 2)

“When one is pregnant is not supposed to plait anyone, if she plaits anyone while pregnant, she will be closing herself and the baby will not come out....” (FGD3, Participant 7)

“Pregnant women must not tie the clothes, what do i mean? I will show you; she must not tie the clothes like this because (dzinwe nowa dzi na doledza) the baby can be tied as well by lila (cord) on the neck and the baby might die inside the abdomen due to the

cord around the neck or it can happen while she is giving birth and if it happens it means she will lose the baby....” (FGD4, Participant 3)

This finding is similar to that of Kortman (2020), who posits that PW were discouraged from using safety pins when wrapping themselves as it makes a knot and by so doing, it tied the baby. Although it was believed this would result in painful and long hours of birth, this advice was taken to ensure positive pregnancy outcomes. In addition, Dako-Gyeke, Aikins, Aryeetey, Mccough and Adongo (2013) affirm that PW fear the consequences of not obeying indigenous practices that will result in unfavourable health problems. However, Esienumoh, Akpabio and Etowa (2016) established that PW lack authority in decision-making regarding the process of their pregnancy.

4.4.1.4 Anti-labour measures

This is another sub-theme that emerged from the study findings related to advice that elderly women give PW, which is based on existing means to subdue labour. These measures encourage delay in seeking early medical attention either at the clinic or hospital. In contrast, it assists PW in cutting down on the time they will spend in the hospital or clinic before giving birth. One participant articulated:

“When the pregnant woman is in labour, we tell her to put a stone on her back like when you are holding a baby on your back and she will remove it when she reaches the hospital....” (FGD1, Participant 6)

The advice given to PW is the advice that they have received from the elders of their time, so it is clear that the same information runs from generation to generation, confirmed by the following quotation

“...I am talking about what I have experienced with my first-born child, my mother-in-law told me to put a stone on my back when in labour waiting for a traditional birth attendant to come and assist me to deliver at home....” (FGD1, Participant 6)

“...when she goes to the clinic, we let her carry a stone and put it at the back in order for her to reach the health facility. She can carry a stick and place it at the back still the same as that one of the stone....” (FGD2, Participant 3)

“Now when she feels labour pains and the mother-in-law noticed that she can deliver along the way, she is been given a stone to put it at the back so that they must arrive at the facility....” (FGD6, Participant 2)

“On arrival to the facility, she takes out the stone so that she must be able to deliver normally....” (FGD6, Participant 5)

“It is because she reported late that she is feeling pain to an extent that the pains are getting worse is then that they will let her put a stone at her back....” (FGD6, Participant 1)

This study revealed that carrying a stone to subdue labour is associated with late utilisation of healthcare services. As a result, it could negatively affect the health of the mother and the unborn baby and possible complications. This study concurs with the study done by Seopa (2021), who states that PW could carry a stone at the back during labour to prevent giving birth on the way to a healthcare facility due to a lack of ambulance and public transport. Masilo (2021) share the same sentiments that traditional MW instruct PW to put a stone wrapped in a cloth on their back while waiting for transport. However, the theory behind this is to subdue labour and delay the baby's birth before arriving at the healthcare facility.

4.4.2 Theme 2: Practices based on religion

Theme 2 emerged from data indicating various practices based on religion that elderly women gave to PW and BMs under their care at home. Three sub-themes identified from theme 2 were practices during the pregnancy period, during the labour period, and during the postnatal period. These is presented in Table 4.7 below.

Table 4.7: Religion-based practices

Theme	Sub-theme
2. Practices based on religion	Practices during the pregnancy period
	Practices during the labour period
	Practices during the postnatal period

Each sub-theme was discussed separately under theme 2 of practices based on the beliefs of elderly women.

4.4.2.1 Practices during the pregnancy period

Data analysis revealed that elderly women played a role in installing some of the practices for PW during the pregnancy period based on religion, tradition, and culture. Some practices include consulting traditional healers or religious prophets whenever PW under their care and support receive negative information about their pregnancies. Participant admitted visiting traditional healers after receiving unbearable information from the pregnant woman under their care after a visit to the doctor:

“If I see that the information given to the pregnant woman under my care and support by the doctor is hard on me, I can go somewhere and seek assistance in a traditional way. Maybe she is possessed so I consult with traditional people such as the traditional healers or the prophets. They can assist the pregnant woman and get deliverance afterwards because sometimes the problem might be caused by spirits....”
(FGD4, Participant 4)

“...When she is at term, from nine months we take her to a traditional healer and she must start with tsemo (steaming) until she gives birth....” **(FDG5, Participant 6)**

“...I (mother-in-law) will take her (pregnant woman) to a traditional healer, I just assume that let me take her to a traditional healer so that he can assist her to open up a way for the baby....” (FGD6, Participant 2)

What Participant 4 shared above shows the extent to which abnormal experiences are easily associated with evil spirits. To show how firmly they believed that evil spirits were always at work to destroy the unborn baby, participant 4 proceeded further to articulate that:

“The pregnant women can be assisted and receive the deliverance because the spirits that are caused by people can make the pregnant woman fail to give birth normally whereas the pregnant woman can deliver normally under normal circumstances. However, the evil spirits make the nurses announce that she cannot give birth normally. Even with the information from the nurses, I will still consider it because they said the woman will not give birth normally, so do you think I can just sit down, no, the nurses will do their job. I also have to do my job....” (FGD4, Participant 4)

This study’s finding is supported by Seopa (2021), who states that traditional medicines were used to protect pregnant women against witchcraft and miscarriages. Similarly, Ozioma and Chinwe (2019) state that spiritual cleansing is a process where a sick or pregnant person is subjected to a bath by water or animal blood as a religious or cultural activity. In support, Africans normally use herbal medicine to fight minor ailments during pregnancy (Nalumansi, Kamatenesi-Mugisha & Anywar, 2017). Abdullah (2016), as cited by Seopa (2021), highlighted that the main reason for traditional medicine usage is to help in the well-being of the mother and the baby,

The discussions further highlighted elderly women sharing information about some cultural practices that PW must properly during pregnancy. For instance, cultural practices discourage PW from standing by the door and talking; they should be seated. Their views were articulated as follows:

“...You must not stand by the door side....” (FGD5, Participant 3)

“...she must not stand by the door side....” (FGD5, Participant 4)

“...she must not stand by the door side, if she wants to say something she must sit down and say whatever she wants to say....” (FGD3, Participant 3)

“... another thing is that she must not stand at the door and touch the door frame with her left and right hands...” (FGD4, Participant 3)

This finding is similar to the study conducted in the Matatiele community in Eastern Cape, South Africa, wherein PW stated that elders reprimanded PW for not standing in the doorway as it would result in the baby getting stuck in the birth canal during birth (Masilo, 2022). This resulted in PW relying on elderly women’s advice in the community as well as from traditional health practitioners about the health products used during their pregnancy. As such, it is believed to protect the mother and the baby from any perceived causes of ill health that could affect them (Thipanyane, Nomatshila, Oladimeji & Musarurwa, 2022).

The study findings revealed the practice based on the belief by elderly women to PW that, culturally, the issue of pregnancy is centred around the family wherein no one outside the family should be told, especially in the first trimester. It is believed that these practices are done to conceal and protect the unborn baby from bewitched results in miscarriage. The following quotes support this:

“...Therefore, we tell her not to tell anyone that she is pregnant, she must hide it....” (FGD6, Participant 2)

“...when one is pregnant you have to hide it because other people are jealous to an extent that they will cause you to have something that is not good to you....” (FGD6, Participant 3)

“Pregnant woman must attend antenatal clinic from 4 months of gestation in order for her to be sure of pregnancy and to hide the pregnancy to avoid to bewitched if she discloses pregnancy at an early stage....” (FGD1, Participant 1)

This finding is similar to that of Kortman (2020), who highlighted that the neighbourhood might cause harm to the unborn baby, therefore, pregnancy issues should be kept as a family affair to avoid witchcraft-induced miscarriages and stillbirths. Lange-Balde and Amerson (2018) stated that pregnancy should be kept secret and must not be revealed until such time is no longer possible to hide it. As such, this context reduces the minimum number of eight ANC contacts as recommended by WHO (2016) to reduce maternal and perinatal morbidity and mortality rates.

The study findings revealed that elderly women play a role in sharing information about practices based on beliefs to PW regarding the issue of registering ANC. One key issue that emerged from the findings is that elderly women were comfortable with PW registering for ANC only when the pregnancy was at 16 weeks (4 months) gestation and above. This was motivated by the view that pregnancy from 16 weeks of gestation would have passed the stage where a pregnant woman can experience miscarriages that can put shame on the family if known by other members outside the family. Culturally, elders use their indigenous knowledge of believing in witchcraft; they think that there are jealous people who can get rid of that pregnancy. These practices contributed to late registration of ANC, which may result in negative pregnancy outcomes. Participants expressed their comfortability with encouraging PW to register with ANC post-miscarriage period by articulating that:

“Pregnant woman must attend antenatal clinic from 4 months of gestation in order for her to be sure of pregnancy and to avoid to bewitched if she discloses pregnancy at early stage....” (FGD1, Participant 1)

“Some people here in the community are jealous of the blessing in the family and the woman may have a miscarriage, so is not a good thing to have such, what would be the reason to meet her husband....” (FGD1, Participant 4)

“She has to go and book for ANC when she is three months pregnant....” (FGD6, Participant 1)

“Yes, it is true she has to go and book at three months....” (FGD6, Participant 5)

This finding concurs with the study done by Mogawane (2014) that a contributory factor for a pregnant woman to delay the first booking of ANC is that they believe in witchcraft. However, Kortman (2020) highlighted that the neighbourhood might cause harm to the unborn baby; therefore, pregnancy issues should be kept as a family affair to avoid witchcraft-induced miscarriages and stillbirths. In agreement, Ragolane (2017) emphasises that it is not customary for Africans to publicise their pregnancy too early due to fear of being bewitched by jealous people. In support of the findings, a study conducted in Malawi by Roberts, Marshak, Sealy, Manda-Taylor, Mataya and Gleason (2016) states that PW did not consider the importance of adhering to monthly ANC as they believe in hiding the pregnancy, thereby reducing misfortunes such as miscarriage and stillbirths. Sanders and Crozier (2018) established that the ability of PW in decision-making regarding their health is influenced by age, societal environment, demographic aspect, and cultural beliefs of the society.

The study's findings revealed practices based on a tradition that elderly women encouraged PW to adhere to when they near term to prepare a woman to give birth naturally. Elderly women would take a pregnant woman who is near term to a traditional healer to perform rituals to open the birth canal for a woman to give birth naturally and prevent difficult labour. This is supported by the following quotes:

“What we can do is to do tsemo (steaming) to the pregnant woman where we prepare the fire and let her stand so as to open the birth canal....” (FDG5, Participant 6)

“When she is at term, from nine months we take her to a traditional healer and she must start with tsemo (steaming) until she gives birth....” (FDG5, Participant 6)

“When a pregnant woman is about to give birth, this should be done, she must do steaming (u a ravhedziwa)....” (FDG6, Participant 2)

“Yes, I agree with her (P2) when we steam (a ravhedza) we are doing it so as to open the way because some of the pregnant women find that the way is not to open some of the time....” (FDG6, Participant 3)

“Yes (u a ravhedziwa) undergo steaming process so as to open up the way (birth canal)” (FDG6, Participant 2)

This finding is similar to Fakeye, Adisa and Musa (2009), as cited in Awolayo (2019), that the usage of herbal medicine by PW is often related to cultural beliefs, especially in low- and middle-income countries like Nigeria 31%, Tanzania 42%, and South Africa 33%. In agreement, Ajiboye and Adebayo (2012), as cited by Awolayo (2019), confirmed that using herbs during the birthing process aimed at aiding safe passage.

This study revealed that PW were told to refrain from sexual acts with their husbands as soon as their pregnancy reached eight months of gestation. One participant articulated the following>

“...Yes the other thing is that a pregnant woman when she approaches eight months of pregnancy I tell her that she must stop to have sexual intercourse because the head of the baby is down and the semen will stick on the head of the baby and it is not a good thing, especially to the old women who will assist the mother on the care of the baby after delivery....” (FDG6, Participant 3)

This finding concurred with Buser (2019), who stated that in Zambia, Lundazi and Mansa Districts, a woman is discouraged from sleeping with their husband at eight

months of gestation to avoid the baby being born with sperm on the head; it is believed that vernix caseosa is sperm. The finding contrasts with WHO (2016) that sexual intercourse during pregnancy is not known to be associated with any adverse outcomes.

4.4.2.2 Practices during the labour period

The study's findings revealed that there are practices based on the belief that PW were given some traditional medicine to drink during labour when there was retained placenta by TBAs in case the woman gave birth at home. This is supported by the following quotes:

“The one that we can at least give something is the one who remains with (shopho) placenta, is then that we look for medicine, crush it and let her drink, I crush the leaves of museto and let him drink it is slippery....” (FGD2, Participant 3)

“It makes it slippery and the placenta will just come out...” (FGD2, Participant 2)

This study finding is contrary to Orief et al. (2017), who established that herbal medicines should be treated as unsafe, as the quantity and the dosage of the active ingredients of herbal medicine are unknown. Eni-Olurunda, Akinbode and Akinbode (2015) support this notion by discouraging the use of traditional herbs or medicine which may be harmful to the unborn baby.

4.4.2.3 Practices during the postnatal period

The findings in this study revealed practices during the postnatal period that elderly women perform to BMs under their care. The elders believe that using traditional herbs treats some minor ailments that can arise during the postnatal period. The following quotes were articulated:

“When the mother has given birth, she will usually complain of tshikangala (after pains) and it is more painful compared to labour pains, so I boil (munawa) certain leaves and let the mother drink to treat tshikangala and indeed the pain will be disappear....”

(FGD2, Participant 4)

“When the mother comes back from the hospital after giving birth, the bleeding from the vagina will stop in about a period of three months then we cook certain leaves (dikgalo) and pat the abdomen with it in order to take out the remaining blood because at the hospital they inject the woman soon after delivery (oxytocin) so as to stop bleeding, and that blood will kill her because she is supposed to bleed more up to three months....” (FGD3, Participant 9)

The use of indigenous treatment is a cultural trait that is more reliable, and it is the knowledge that is passed from elders to younger ones. This is in line with what has been said by Cheboi, Kimeu and Rucha (2019), who stated that the use of traditional straps made from animal skin and cow shells is a paramount Marakwet repertoire used to trap, cover and involute the uterus after giving birth. This is supported by Aljofan and Alkhamaiseh (2020) and Thipanyane, Nomatshila, Oladimeji and Musarurwa (2022), who state that the use of traditional health medicine makes the pregnant woman have a hassle-free pregnancy to shorten labour and improve breast feeding. However, according to Omer, Zakar, Zakar and Fischer (2021) and Furber, Carrod, Maloney, Lovell and Mc Gowan(2009), most of the elders practising indigenous knowledge are not trained people, but acquired the skill from their elders, which is passed from one generation to the next.

This study revealed that for a newborn to come out from the isolation room for the first time, some rituals must be performed to protect the baby from certain sicknesses. Elderly women at home are seen as the person who facilitates the process of rituals by a traditional healer. Participants articulated the following:

“It is about the newborn baby, rituals should be performed to the baby. To strengthen the bones and the stomach of the newborn, to prevent frequent passing of loose stools...” (FGD2, Participant 1)

“...it takes only two weeks I am referring to how the church runs their things but in our Venda culture, immediately when the cord falls down rituals (uthusiwa) for the baby will be done and go outside the room but not out of the gate, the baby must remain inside the yard until such time when the baby is growing to an extent that other can be able to hold her is when the ritual is performed again for the baby to go outside of the gate...” (FGD4, Participant 4)

“When we say it is time for the baby to come out of the isolation room, we call the traditional healer to come and perform rituals (u mu thusa) to the baby....” (FGD6, Participant 4)

“...in our venda culture, immediately when the cord falls down rituals (uthusiwa) for the baby will be done and go outside the room but not out of the gate...” (FGD4, Participant 4)

This finding is consistent with the finding reported by Mogawane et al. (2015), as cited by Masilo (2022) from a study conducted in Limpopo, South Africa. The study reported the traditional medicine used to treat childhood illness called *Dupa*. This confirms that certain rituals are done to the babies involving traditional medicine as encouraged by elderly women in the family. Dako-Gyeke, Aikins, Aryeetey, Mccough and Adongo (2013) affirm that PW fear the consequences of not obeying indigenous practices that will result in unfavourable health problems.

This study revealed the practices during the postnatal period of the caregivers to the BMs. The mothers were encouraged to feed the baby with soft porridge immediately after birth, believing that the baby would be born hungry. Participants articulated the following:

“Yes we used to deliver a very tiny baby but soon after delivery the baby should be fed....” (FGD2, Participant 2)

“Newborn should be given feeds (soft porridge) immediately after delivery because the baby will be hungry as the mother was getting a small amount of food during pregnancy....” (FGD1, Participant 2)

The perception of the elders as caregivers is that babies are born hungry as the mother gets a small amount of food which the caregivers use to measure and give to the PW. This finding is in agreement with Buser (2019), who stated that women in Mansa District, Zambia, introduce traditional porridge as early as one month of life. The porridge was mixed with herbs to protect the baby from childhood sicknesses. Furthermore, Issaka, Agho, Burns, Page and Dibley (2014) and WHO (2015a) stated that a newborn baby should be breastfed exclusively for up to six months or formula fed exclusively if there is a contra-indication to breastmilk or in case the baby is an orphan.

4.4.3 Theme 3: Support given by elderly women to pregnant women and breastfeeding mothers

Theme 3 emerged from data support given by elderly women to PW and BMs under their care at home. Two sub-themes were identified from theme 3: support during the pregnancy period and support during the postnatal period. These are presented in Table 4.8 below.

Table 4.8: Support given by elderly women to pregnant women and breastfeeding mothers

Theme	Sub-themes
3. Support given by elderly women to	Support during the pregnancy period

pregnant women and Support during the BMs postnatal period

Each sub-theme is discussed separately under theme 3 of support given by elderly women to pregnant women and BMs.

4.4.3.1 Support during the pregnancy period

The other role of elderly women, as revealed by study findings, includes financial support to PW. Participants revealed that apart from giving advice and practices to PW and BMs under their care, they again offer great support to them in order to produce a good pregnancy outcome. The following quotes indicate the kind of support elderly women offer pregnant women:

“Yes, I have to understand the pregnant woman because I don’t know what she was told at the clinic, and I also assist her with the money to be checked by sonar machine....” (FGD4, Participant 1)

“Yes, if I see that the information given to her by the doctor is hard on me, I can go somewhere and seek assistance in a traditional way maybe she is possessed....” (FGD4, Participant 4)

This finding is in line with Sanders and Crozier (2018), who confirmed that PW decision-making ability regarding their pregnancy is influenced by the societal environment and cultural beliefs of the society. Furthermore, this shows that elderly women are responsible for every need of PW, including the involvement of a budget set aside to assist the PW whenever the need arises and it is the responsibility of the caregivers at home.

4.4.3.2 Support during the postnatal period

The study revealed that elderly women have the kind of support they offer to BMs at

home. The support offered by elderly women at home includes caring for the baby where baths and cleaning the umbilical cord, cleaning the room, and providing food for the mother. The following quotes indicate the kind of support elderly women offered:

“...the time after she has given birth, so when she comes back home, she must not go back to her husband’s room she must stay in another room with a caregiver taking care of her and the baby....” (FGD5, Participant 4)

“...when it (umbilicus) falls down the caregiver will clean the room as a sign that the umbilical cord has fallen down....” (FGD5, Participant 5)

The study finding is similar to the study conducted in Zambia by Buser (2019), who stated that the grandmother and mother-in-law took care of the umbilical cord by applying traditional herbs for the umbilicus to heal and fall off faster.

4.4.4 Theme 4: Needs of elderly women in participation in maternal health practices

Table 4.9: Needs of elderly women in participation in maternal health

THEME	SUB-THEME
4. Needs of elderly women in participation in maternal health practices	Need for training Need for knowledge

Each sub-theme is discussed separately under theme 3 of support given by elderly women to PW and BMs.

4.4.4.1 Need for training

The study revealed that elderly women as caregivers of PW need training as they have their own way of caring for PW and BMs using indigenous information acquired from their ancestors and life experience. Some indigenous information is believed to cause delays for PW in seeking early medical attention. This is supported by the following quotes:

“...Nurses must come and teach us...” (FGD3, Participant 1)

“...They (nurses) can come to teach us not to control pregnant woman on how to eat and what not to eat...” (FGD3, Participant 4)

“For us as caregivers at home, nurses are the ones who are supposed to teach us...” (FGD6, Participant 3)

This finding is supported by Mogawane (2014), who states that community involvement and active participation should be strengthened on the issues relating to ANC, thereby conducting training workshops and traditional awareness campaigns for traditional health practitioners (THPs), church leaders, elders, and the community at large. In agreement with Awolayo (2019), who established that community mobilisation and awareness and training of TBAs who may also serve as maternal delegates within the community is recommended in order to discourage or reduce unsafe practices and promote maternal healthcare services.

4.4.4.2 Need for knowledge

The study revealed that there is a need for knowledge for elderly women to participate in maternal health practices. Elderly women offer care to PW and have more influence in decision-making regarding the health of PW at home. The study showed that they didn't know as they were not trained in caring for PW. This was supported by the following quotes:

“We don’t have knowledge that is why they allow her to go to the clinic to be checked by nurses....” (FGD6, Participant 2)

“To be able to have knowledge on how to take care of the pregnant woman at home as a caregiver....” (FGD6, Participant 3)

“...So they must teach us that when the pregnant women come from an antenatal visit we must not take control over what they said rather support them....” (FGD3, Participant 4)

This finding is supported by Fotso, Ambrose, Hutchinson and Ali (2020), who state that in resource-constrained settings, training and rebranding illiterate TBAs could assist in promoting good perinatal care and institution-based delivery results in the association between communities and the healthcare system. This aligns with Acosta, Oelke and Lima (2017), who state that deliberate health dialogue can bring about change in health practice and policies due to collaboration of knowledge and experience.

4.5 SECTION 2 PRESENTATION OF FINDINGS FROM MIDWIVES

Section 2 discusses the presentation of findings from MW from clinics of the study site. Study findings were obtained from the in-depth individual interview. Sample description was discussed first, followed by the study's main findings.

4.6: SAMPLE DESCRIPTION

Sample description comprises of the age and gender of participants. Details described in table 4.10 below.

Table 4.10: Age and gender description of participants

Midwives	Age	25-34	1	
		35-49	2	
		50-59	7	
	Gender	Females	7	
		Males	3	
Total			10	100

4.7 THEMES, SUB-THEMES AND CATEGORIES FROM THE MIDWIVES

In this section, the study presents the findings which describe MW views regarding the barriers to seeking early medical attention by PW and BMs. Data revealed one theme (barriers that delay in PW from seeking early medical attention). Seven sub-themes were developed from textual analysis of the transcript from the individual in-depth interview, as depicted in Table 4.11 below.

Table 4.11: Theme, sub-themes and categories for midwives

THEMES	SUB-THEMES
1. Barriers that cause delay to pregnant women from seeking early medical attention	Emotional reaction
	Lack of knowledge
	Socio-economic factors
	Individual factors
	Cultural/Religious/Traditional beliefs
	Social factors
2. Need for elderly women to be trained by MW	Training needs

4.8 FINDINGS OF THE STUDY AND LITERATURE-CONTROLLED DISCUSSIONS

The study findings are discussed based on the emerging theme from textual analysis. During data analysis, seven sub-themes were generated: emotional reaction, socio-economic factor, individual factor, religious belief, traditional factor, cultural influence, and social factors.

4.8.1 Theme 1: Barriers that delay pregnant women from seeking early medical attention

4.8.1.1 Emotional reaction

Screening is mandatory for every pregnant woman who comes for ANC, including the collection of blood samples. This study revealed that women are scared and hate to be taken blood repeatedly and tested for HIV. The following quotations support this:

“...they are afraid of going to the hospital and they know that because of her age, and the number of children she had, she should not be referred to the hospital, so that’s the reason some come late for labour. They have a certain belief that if they go to the hospital (a u vhuyi), they don’t come back, if you go to the hospital and come back it is unlikely because nurses will kill you because you have a lot of children or you are too old to bear children, so they believe that when people get sick and go to the hospital they die n don’t come back...” (MW6)

“Pregnant women have challenges in such a way that if they start to book for ANC early they end up having many ANC visits, another thing if pregnant woman book early, they hate to be taken types of blood repeatedly and they also hate to be tested for HIV, they want it to be done once, so they end up coming late to book for ANC...” (MW2)

This finding is consistent with a study conducted in Zambia by Sakala (2011), which states that women who were scared to go for ANC were afraid of HIV testing. However, WHO (2016) states that ANC is vital through timely and appropriate evidence-based actions related to health promotion, disease prevention, screening and treatment.

4.8.1.2 Lack of knowledge

The study revealed that PW delay seeking health intervention from healthcare facilities due to a lack of knowledge. The following quotes support this:

“...Yes, we tried to talk but sometimes they give you a reason sometimes the reason is fair sometimes it is unfair, sometimes they say I never knew that I was pregnant, and then the other thing is they tend to be pregnant and not believe that they are pregnant they run around with priests looking for help and most of the times the thing we have experienced here is when the priests told them that they have got (xidliso) something moving inside her....” (MW6)

“Sometimes a woman may fall pregnant and not believe that she missed her period because of pregnancy and not believing that she can be pregnant but believe that she is having something moving in her tummy (tshiliso) so she ends up coming to the clinic for examination after recognising that the abdomen is growing big....” (MW7)

“The other thing that causes delay is lack of knowledge in the case of primigravida not sure whether the pain she is feeling is a sign of labour, so if she is not sure she will just tell herself that it is just a turning of the baby, so most of them they take it like that and make her arrive at the clinic late though most of them were taught about true signs of labour....” (MW8)

This study finding is supported by the study conducted in Nepal by Sharma, Khanal, Acharya, Adhikari, Bista, Adhaikari and Kheral (2020), who revealed that PW

knowledge, perceptions and decision-making autonomy have more influence in utilising maternal healthcare services. Lack of knowledge may be caused by people's different belief systems, especially those residing in deep rural areas (Thipanyane, Nomatshila, Oladomeje & Musarurwa, 2022).

4.8.1.3 Socio-economic factors

This study revealed that inaccessibility to healthcare facilities by PW and BMs was a barrier to seeking early medical attention. This study further revealed that some PW live far from the healthcare facility and are not working. They need transport to access healthcare facilities, so lack of money was seen as a barrier for PW to seek early medical attention. This was explained in the following quotes:

“Some come from the nearby village and it is not simple to get transport to the clinic and some they will tell you that she did not have money for transport. Most of the women we take care of are from the farm and there is a challenge of transport indeed....” (MW2)

“Some of the things maybe that we can look at is the distance from her home to the clinic, she has to walk a long distance to the clinic, if looking for the transport, it may arrive late while long been standing by the road, like in this area it is very difficult to get public transport, so some when they pass they will just pick her up with their own private cars and place her here as a means of assisting her, so, in this case, it sometimes makes her delay in seeking help....” (MW8)

“...they work in farms and the farms are far away from us here at the clinic and you find that there is no clinic at the farm and no bus as a means of transport so when they fall pregnant, they tend to stay that side and end up not getting time to come back to the clinic because they usually work from Monday to Friday....” (MW6)

“...mother after giving birth will decide to go to the farm for work and stay there with the baby but not taking the immunisation of the baby seriously. When you ask her what happened when you don’t come check-up and bring the child for immunisation, she will just say this and that which does not make sense because she is aware that the baby should get immunised....” (MW8)

“...I can tell you about other women who come from nearby villages so for them to come to the clinic they need transport, so some don’t have money they will have to walk a long distance and it makes them arrive late the clinic and late to seek medical assistance....” (MW4)

This finding is consistent with Nyakang’o and Booth (2018), who conducted a study in Kenya. They reported that the distance to the healthcare facility for women from rural villages was challenging. They further reported that women who chose to give birth at a healthcare facility had to walk long distances, and those who could not walk had to hire a vehicle and pay for it. Therefore, it was seen as a barrier to giving birth at a healthcare facility. Another study conducted in the Omaheke Region in Namibia by Iyambo (2017) reported that the distance to healthcare facilities contributed to the low utilisation of ANC services due to a lack of transport money. In contrast, a study conducted in Zimbabwe by Mphake (2017) posits that the distance to a healthcare facility was not to be a barrier for PW to utilise healthcare services; 66,60% of the women did not have challenges with the distance to a healthcare facility.

4.8.1.4 Individual factors

PW under the influence of elders at home tend to visit prophets or traditional healers to seek a second opinion after they have been told that they must go to the hospital for delivery due to some complications. However, the prophets inform them that they will give birth naturally; thus, they should not go to the hospital. Thus, this discourages them from seeking early medical assistance. The following excerpts support this statement:

“...I can say women don’t want to stay at the clinic for a long period of time, they are firstly progressed at home by the ones they stay with, they tell her that do not to rush to go to the clinic, the time you go there you will give birth immediately on arrival without any waste of time. So that is the influence coming from those people staying with the pregnant woman....” (MW5)

“...when labour starts she must first do some cultural or spiritual practices (u phetha ndaela) before she comes to the clinic so you will find that when she comes to the clinic she arrives late, in some instances they first call pastors to pray for her so that she can come to the clinic....” (MW5)

This finding concurs with Nyakang’o and Booth (2018), who conducted a study conducted in Kenya. They stated that the availability and accessibility of TBAs were perceived as a critical facilitator for home birth deliveries, especially during the night when the transport challenge is more evident. A study in Pakistan established that the use of TBAs is a social and cultural practice, especially in rural areas (Omer, Zakar, Zakar & Fisher, 2021). Varley further adds that in the household structure, the mother-in-law and husband seldom allow women any power to make decisions regarding their own life.

Another challenge experienced at the clinic is that some women delay coming to the clinic. Instead, they first progress themselves at home with the influence of elders, sometimes they say:

“...I will never allow you to refer me to the hospital if you think you will refer me, I will stay at home and arrive here when I am about to give birth....” (MW8)

“...I didn’t want to rush to the clinic and just stay here for long period, I wanted to spend a few hours here that’s why I first sit at home even if I was feeling pain, I really wanted to come when I am about to deliver....” (MW7)

“...If I come early you will refer me to the hospital, whereas I don’t want to deliver at the hospital....” (MW5)

This study's findings concur with WHO (2016) regarding the ANC model that aims at providing PW with respectful, individualised, and person-centred care at every contact and to ensure that each contact delivers effective, integrated clinical practices (interventions and tests), provides relevant and timely information and offers psychosocial and emotional support by practitioners with good clinical and interpersonal skills working in a well-functioning health system. In addition, MW can advocate for PW and families’ seeking early medical intervention.

4.8.1.5 Cultural/Religious/Traditional beliefs

This study revealed that the time of initiation of ANC services was around 20 weeks of gestation upward in fear of being bewitched if initiated early. This belief could be seen as a barrier to PW seeking early medical attention. The following quotes support this:

“...Even if we tell them to book early but not all of them follow this health advise because in our culture we believe that if you tell people that you are pregnant when it is still early you will be bewitched....” (MW4)

“Well most of the people in this area tend to believe in the tradition so when they are pregnant they tend to hide their pregnancy because they are afraid that their neighbours or other people to see that they are pregnant and can make that pregnancy disappear....” (MW6)

“Those who book late for ANC turn to hide the card in fear of others knowing that they are pregnant and they can disturb their pregnancy, as black people, we believe that witchcraft do exist so the pregnancy can be taken out....” (MW3)

“...most of them consult from traditional healer or prophet who tells them that this time, this year you will deliver normally I have seen it from the bones or the spirit showed me, then on that case, she comes being fully dilated and she is previous caesarian section x2 you will see that it becomes a problem....” (MW5)

“We experience problems from the women who consult traditional healers and prophets though some don’t tell us that they have consulted we see that when we tell the woman to do this she doesn’t do it because she already told that you do this, for example, when I refer the woman to the hospital for operation because i have noticed that it will not be possible for her to deliver normally, she will refuse and said she will deliver normally, because of little knowledge she had and trust what the prophet or traditional healer told her, she believes more in prophets or traditional healer than nurses....” (MW5)

This finding is consistence with liyambo (2017), who conducted a study in the Omaheke Region, Namibia. He stated that the majority of respondents reported initiation of ANC visits at four to six months of pregnancy to screen for pregnancy complications and information given on health-related matters through health education; however, the same study indicated that pregnancy-related traditional beliefs had no barrier that prevented PW from starting with antennal visits.

4.8.1.6 Social factors

The study revealed that elders, as caregivers, had more influence in decision-making about the utilisation of healthcare services by PW and BMs at home. The influence was seen as a social factor that acts as a barrier to utilising healthcare services. This is supported by the following excerpts:

“...I can say women don’t want to stay at the clinic for a long period of time, they are firstly progressed at home by the ones they stay with, they tell her that do not to rush to go to the clinic, the time you go there you will give birth immediately on arrival

without any waste of time. So that is the influence coming from those people staying with the pregnant woman....” (MW5)

“...it depends on the family because in some instances you find that it is an agreement from a particular family that you are not supposed to go to the clinic now....” (MW2)

“...To show that there are some of the things that they do at home, you will hear the breastfeeding mother saying the problem is that the breast milk is less than is expected to feed the newborn and the newborn is crying because of hunger, and the caregiver at home said we must give the baby soft porridge it will work....” (MW8)

This finding concurs with Sakala (2011), who concluded that influence from an older close relative was a barrier to the utilisation of healthcare services because it was believed that they had more experience in handling pregnancy issues rather than encouraging PW to seek early medical attention.

4.8.2 Theme 2: Need for elderly women to be trained by healthcare workers

This theme is related to the training needs necessary for elderly women to participate effectively in maternal health in the province. The findings are highlighted in Table 4.12

Table 4.12: Need for elderly women to be trained by midwives

THEME	SUB-THEME
2. Need for elderly women to be trained by healthcare workers	Training needs

4.8.2.1 Training needs

This study revealed a need for elderly women to be trained by healthcare workers regarding their roles in maternal health practices. Elderly women do not know the importance of seeking early medical care. The following quote supported this:

“...even the secondary factors the grannies at home and the elderly women even on the day of chronic we can tell them about this topic of early booking so that they may help others, so when the grannies come here during the day of chronic, we can gather them here and educate them about this issue....” (MW6)

The study revealed that elderly women influence the health of PW, and at times, it causes a delay in seeking medical care. Therefore, it is believed that there is a need for elderly women to be capacitated of the importance of encouraging PW to seek early medical attention. A participant articulated:

“Elders at home, if the woman was told at the clinic that the baby is not in a good position, that’s where the old woman at home influence taking, the woman to prophets or traditional healer to seek help and sometimes is an agreement from the rest of the family members....” (MW4)

In a study conducted in the Omaheke Region, Iiyambo (2017) recommends that there should be programmes specifically for men, TBAs, and traditional leaders that initiate safe motherhood. Amutah-Onukagha et al., (2017) and Ohaja and Lawless (2017) concur that training TBAs may be vital to facilitate timely referral, which is more important in reducing maternal morbidity and mortality.

“I don’t think the issue will be resolved completely because information can be disseminated but a person can take what her mother or relative told her unlike what a nurse can say because she believes that a person who can assist her better is her mother or mother-in-law at home, for example when the woman is in labour and she

report to the mother or mother in law at home they will tell her to wait and not to rush to the clinic and she will do as told” (MW5)

“Health education should be given to the old women and mother-in-laws because they are the caregivers of the pregnant women so when they have pregnant women at home they must encourage her to book early for antenatal clinic and again to tell the healthcare worker who assist us to go and do a home visit if they find pregnant woman they must tell her to start early booking for antenatal care....” (MW7)

This study’s findings concur with a study conducted in rural Kenya by Riang’a, Nangulu & Broerse (2018), who state that grannies, mother-in-law, other female relatives, and TBAs are regarded as the persons that play vital roles in the community and in pregnancy and childbirth in rural areas. Hence, they are informal maternal care providers, with no formal training. Instead, they rely on the traditional knowledge passed from generation to generation. Furthermore, Abegunde (2016) stated that training for TBAs may assist in increasing awareness regarding cultural practices that contribute to maternal mortality, thereby encouraging PW to utilise healthcare services.

4.9 SECTION 3: PRESENTATION OF FINDINGS FROM PREGNANT WOMEN AND BREASTFEEDING MOTHERS

Section 3 presents and discusses the findings from data collected from PW and in various clinics at the study site. The data were collected through in-depth individual interviews with either a PW or BFM. The sample descriptions are presented first, followed by the discussions of the findings.

4.10 SAMPLE DESCRIPTION

Sample description comprises of fifteen participants that were interviewed. Age, parity of participants described in table 4.13 below.

Table 4.13: Age and parity of pregnant women and breastfeeding mothers

Pregnant women and breastfeeding mothers	Age	20-29	2	
		30-39	8	
		40-49	5	
	Parity	1-3	13	
4-6		02		
Total			15	100%

The table below (4.14) indicates the number of clinics and number of pregnant women and breastfeeding mothers that were interviewed in the study.

Table 4.14: Number of pregnant women and breastfeeding mothers per clinic

Clinics	Number of pregnant women	Number of breastfeeding mothers	Total %
A	3	2	
B	3	2	
C	2	1	
D	2	0	
TOTAL	10	5	100%

4.11 FINDINGS OF THE STUDY AND LITERATURE CONTROLLED DISCUSSIONS

In this section, the study findings present the kind of information elderly women give to PW and BFMs, which influences the utilisation of healthcare services. The emerged

themes, sub-themes and categories are discussed in detail, supported by direct quotations from the transcripts. The discussion followed by literature to confirm the study's findings. Emerged themes and sub-theme are specified in Table 4.15 below.

Table 4.15: Themes, sub-themes and categories of pregnant women and breastfeeding mothers

THEMES	SUB-THEMES
1. Information is given to PW and BFMs by elderly	Eating behaviours
	Eating patterns
	Cultural beliefs
	Dressing habits
	Sleeping habits
	Religious information
	Cultural information
	Traditional information
2. Need for elderly women to be trained on their roles regarding maternal care	Need for knowledge
	Need for support by elderly women

4.11.1 Theme 1: Information given to pregnant women and breastfeeding mothers by the elderly

For this theme, eight sub-themes were generated: eating behaviours, eating patterns, cultural beliefs, dressing habits, sleeping habits, religious information, cultural information, and traditional information. Each sub-theme is interpreted and discussed

separately, emphasising the importance of how the information received from elderly women influences the utilisation of healthcare services by PW and BFM.

4.11.1.1 Eating behaviours

Elderly women give PW different kinds of information about restricted food they should avoid while pregnant, such as not eating anything too hot or cold food, and not eating boiled eggs. This is believed to have a negative effect on the unborn baby's health. This is supported by the quotations below:

“I must not eat hot food because I will give birth to the baby with birthmarks because of hot food....” (PW6)

“...I must not eat cold food; the baby will catch coldness because of cold food....” (PW8)

This finding is consistent with Ramulondi, de Wet and Ntuli (2021), who conducted a study in Northern Maputaland, North-Eastern part of KZN. They stated that some of the food affects the skin of the foetus, other cause the baby to be born with no hair, and others cause jaundice.

The study further revealed that elderly women discouraged PW from eating eggs as it is believed that they cause women not to give birth naturally. In contrast, eggs are a source of protein, important for both the mother and the foetus. One participant articulated the following:

“...I must not eat boiled eggs because culturally boiled eggs are for preventing me from giving birth properly, I mean naturally....” (PW4)

These findings are similar to those in a study conducted in Botshabelo, Free State Province of South Africa. Kortman (2020) posits that eggs are some of the food

prohibited to PW as they cause long and painful labour. A study conducted in Ghana by Arzoaquoi, Essuman, Gbagbo, Tenkorang, Soyiri and Laar (2015) seemed to come to the same conclusion. It states that the eating of eggs by PW was likely to cause an overweight foetus and subsequently contribute to difficult and painful childbirth, and possibly the death of the mother.

4.11.1.2 Eating pattern

The study confirmed that PW received information from elderly women about reducing the amount of food supposed to be eaten during pregnancy. The PW indicated elderly women believed that eating too much food prevented PW from giving birth naturally, but through the caesarean method due to a big abdomen. This notion is supported by quotations below from three participants:

“...she (my mother-in-law) told me not to eat too much of food because the baby will become big and my abdomen and end up giving birth through operation....” (PW5)

“She (my mother-in-law) told me not to eat too much food because the baby will be big when I give birth, she said if I eat a lot of food the baby will be big and I will give birth through operation....” (PW6)

“I must not eat a lot of food, the baby will grow over if I eat too much and I can be obese....” (PW11)

This finding concurs with that made by Tsegaye, Tamiru and Belachew (2021) in their study done in Ethiopia. The study highlights that food taboos during pregnancy were considered nutritionally essential, but differ only with the reason that food would be plastered to the foetal head, causing a big baby and thus resulting in difficult labour. Food taboos have a big influence on the pregnant woman and the baby as many generations have followed them, and they form part of the culture (Ooto, Habib & Ankomah, 2015). This finding indicates a lack of nutritional and health education

among elderly women, which must be attended to appraise their understanding – if they are to continue rendering maternal health assistance to PW and BMs.

4.11.1.3 Cultural beliefs

This study revealed that the kind of information elderly women give PW negatively influences the utilisation of healthcare services and is culturally inherent. PW tended to believe information from the elders and adhered to the advice in fear of misfortune, such as prolonged childbirth and miscarriages likely to occur during pregnancy. Most of the participant's expressed the following views:

“...she said if I am going somewhere I must not make a turn before I reach where I am going. I will have a miscarriage (nwana ua huma ndilani) or give birth to a premature baby (nwana a songo swika)” (PW6)

“...do not accompany a person and make a U-turn long the way, she said when the baby is coming, will come and go back exactly what i will be doing when i accompany a person and don't arrive it means even the baby will not arrive...” (PW3)

“When I go to report missed periods to my mother-in-law, she told me that I must delay starting to book for ANC because I must hide my pregnancy. She said people can be so jealous in such a way that they may make me not to give birth to my baby or I get a miscarriage along the way....” (PW5)

“I must start to book for ANC when I am five months pregnant” (PW6)

“I must not stand by the door side for a long time, I will stop the baby to come in the time of giving birth, the baby will get stuck along the way....” (PW8)

“...if a visitor comes to visit me at home while I am pregnant when she or he leave I must not accompany them to the gate or any other distance beyond that because

there will be something that will happen to me that I don't know but culturally is not allowed...." (PW4)

This finding is supported by Kortman (2020), who states that women in Botshabelo delay starting ANC up to the third trimester to avoid visiting the clinic frequently and mostly to hide their pregnancy from non-trusted members in fear of being bewitched. However, the Guidelines for Maternity Care in South Africa (2016) and WHO (2016) recommend that PW should start to book for ANC as early as less than 12 weeks of gestation to identify health risks when it is still early and provide adequate management as a measure of improving maternal health. However, information from elderly women on the possibility of losing pregnancy due to early exposure caused PW to make wrong decisions, putting them at risks they were trying to avoid.

4.11.1.4 Dressing habits

The study revealed that pregnancy is adorable and most sought after by each woman; hence, the fear of witchcraft. The findings suggest that to conceal the pregnancy and protect the foetus, PW were advised to dress such that other people would not notice the gestational age to avoid miscarriages and death. This information is given to PW by elderly women as a measure to safeguard pregnancy and smooth, timely delivery.

"...I must not wear clothes that expose my pregnancy because other people can be able to calculate the months I have for my pregnancy, if others are jealous of me and they don't want me to have a baby they can tie me and my time to give birth will pass (postdates)...." (PW9)

"...when I am pregnant, I am not supposed to wear tight clothes that expose the abdomen outside (pregnancy), for the people not to realise that the pregnancy is how far because other people can estimate the months of the pregnancy and if the one who can estimate the months of my pregnancy is the person who does not wish me

good to have a baby, i can give birth to a dead baby and in other cases the I can die” (PW3)

This finding is similar to that made by Kortman (2020) in a study done in Botshabelo, South Africa, who highlighted that the neighbourhood may cause harm to the unborn baby; therefore, pregnancy issues should be kept as a family affair to avoid witchcraft-induced miscarriages and stillbirth.

4.11.1.5 Sleeping habits

This revealed the kind of information that elderly women give to PW as their way to govern pregnancy and avoid negative pregnancy outcomes. The restricted sleeping habits were believed to prevent difficult, prolonged and painful labour. The following quotations support this:

“...She (grandmother) used to tell me that I should not sleep a lot during the day because when I am about to give birth, it will be difficult for me because the baby will be sleeping a lot....” (PW4)

“I must not sleep during the day, even the baby will sleep and experience difficulties when giving birth and the baby will sleep when it is time to come out....” (PW5)

“...even sleeping, she said I must not sleep too much....” (PW11)

“...I was told like don't sleep during the day....” (PW3)

“I was told to wake up early in the morning before other people wake up to prevent people to step on me (u nkandedza) while I am still sleeping, I will take longer to give birth to the baby....” (PW9)

The finding concurs with Kortman (2020), who states that PW in the Botshabelo community were discouraged from sleeping often during pregnancy to avoid prolonged delivery time. Kenyan PW articulated that oversleeping and being lazy during pregnancy would result in prolonged labour caused by the baby who would be sleeping during the delivery time (Riang'a, Nangulu & Broerse, 2018).

4.11.1.6 Religious information

“When I was in labour pains with my first pregnancy, she prepared water for me to bath with and some I was given to drink so that when I arrive at the clinic I must deliver normally without any problems, and I didn't take much time me and my baby are fine until now....” (PW3)

Religious practices are common in many South African households and are followed when a pregnant woman gives birth. Such practices are reported in other studies showing that they are practised elsewhere in Africa (Bienempaka, Tibanyendera, Atwine, Kyomuhangi & Macdonald, 2014). Like traditional practices, religious practices involve using “holy water” to cleanse the child and mother through bathing or drinking the potion after discharge from the hospital and before they meet members of the community. This is believed to protect both the mother and baby from bad spells. These practices were reported in a study conducted in Nigeria by Ohaja and Anyim (2021), who assert that in most African communities, newly born babies and their mothers undergo either a traditional or religious cleansing ceremony before being exposed to protect the two from potential harm. The authors observe that the religious practice may be more radical than the traditional practices in that the babies may not be allowed to be treated in clinics but by other religious means. Some of these practices can work for a short period and lead to severe infections if the water is not properly sanitised.

4.11.1.7 Cultural information

*“...not to plait hair because I will be tying the baby so I will take longer to give birth....”
(PW5)*

“When I go to give birth, she (mother-in-law) told me to put a stone on my back so that I must not deliver on the way....” (PW6)

“...she told me that I should (puta mafeisi) close my fingers tight together until I arrive at the clinic to prevent me from giving birth on the way....” (PW10)

The literature shows that PW make most of their decisions about the mode of delivery they prefer based on cultural information (Latifnejad, Zakerihamidi & Merghati, 2015). The literature further shows that one of the main sources of information for selecting the mode of delivery is the account of experiences PW hear from other women in social gatherings, including cultural and religious meetings (Latifnejad, Zakerihamidi & Merghati, 2015; Abbaspoor, Moghaddam-Banaem, Ahmadi & Kazemnejad, 2014). Cultural information is always readily available and rapidly communicated to PW and BFMs by other women, particularly elderly ones. In agreement, Gluckman, Hanson, Seng and Bardsley (2015) state that cultural information can affect PW and newborns. Much of the cultural information tends to discourage women from acting otherwise in a certain manner, believed to be transgressing norms and cultural values and likely to put the mother and baby at risk.

4.11.1.8 Traditional information

This study revealed that elderly women give medicine to PW after delivery to clean the blood and stomach. It is believed that women eat a lot of food during pregnancy. One participant articulated the following:

“...after I have given birth, my grandmother gave me some medicine it is called the essence of life they say it cleanses the blood because when I was pregnant i ate a lot, so I must clean my stomach so that I become okay again....” (PW4)

Kortman (2020) highlighted that women in Botshabela were offered herbal brew to consume, which would assist in the development of the foetus and hasten the delivery process.

4.11.2 Theme 2: Need for elderly women to be trained on their roles regarding maternal care

Table 4.16 shows theme 2's themes, sub-themes, and categories as findings from a sample of PW and BMs sample used in the study.

Table 4.16: Need for elderly women to be trained on their roles regarding maternal care

THEME	SUB-THEME
2. Need for elderly women to be trained on their roles regarding maternal care	Need for knowledge
	Need for support by elderly women

Each sub-theme was discussed separately, indicating the need for elderly women to be trained on their roles regarding maternal care.

4.11.2.1 Need for knowledge

The study revealed a need for elderly women to be trained on their roles regarding caring for PW and BFM's at home. Elderly women lack information regarding the early utilisation of healthcare services; the study showed that elderly women influence decision-making regarding the health of PW, so they must know about training to encourage PW to seek early medical attention. This was supported by the following quotes:

“...for old women to know nurses must teach them, so that they can tell the pregnant women whom they take care of at home and give them the necessary information...”
(PW1)

“When the old women are taught, they must support us (pregnant women) and must encourage us to book early for antenatal care so that we receive good care because it is where we get assisted....” **(PW5)**

According to Amutah-Onukagha, Rodriguez, Opara, Gardner, Assan, Hammond and Farag (2017), delay for TBAs in making referrals to health facilities are believed to increase maternal morbidity and mortality and have contributed to the argument regarding TBA services. However Amutah-Onukagha et al., (2017) and Okonofua, Ntoimo and Ogu (2018) stated that the roles of TBAs as doulas and caregivers should be encouraged to promote health-seeking behaviours, such as early referral to healthcare facilities and provide culturally competent care. In addition, Amutah-Onukagha et al., (2017) and Okonofua et al., (2018) stated that most PW see TBAs as critical, culturally appropriate healthcare providers.

4.11.2.2 Need for support by elderly women

The study revealed that PW need support from elderly women regarding the utilisation of early medical attention. One participant articulated:

“Nurses should be the one who are supposed to tell pregnant women to do this and that, and to tell the old women that they must not get involved much on the health of pregnant women of today rather give them support on the care they receive from nurses....” **(PW2)**

According to Ohaja and Murphy-Lawless (2017), PW and BFM receive comprehensive care and support from TBAs, especially in rural areas where accessing health facilities with advanced maternal care is difficult. In a study conducted in the

Omaheke Region, Iiyambo (2017) recommended that communities should be made aware that all PW, irrespective of age and parity, should be supported regarding the utilisation of healthcare services. Iiyambo (2017) further recommend that overall awareness among community members, particularly among PW and their husbands/boyfriends, should be emphasised regarding the importance, number, and timing of antenatal visits.

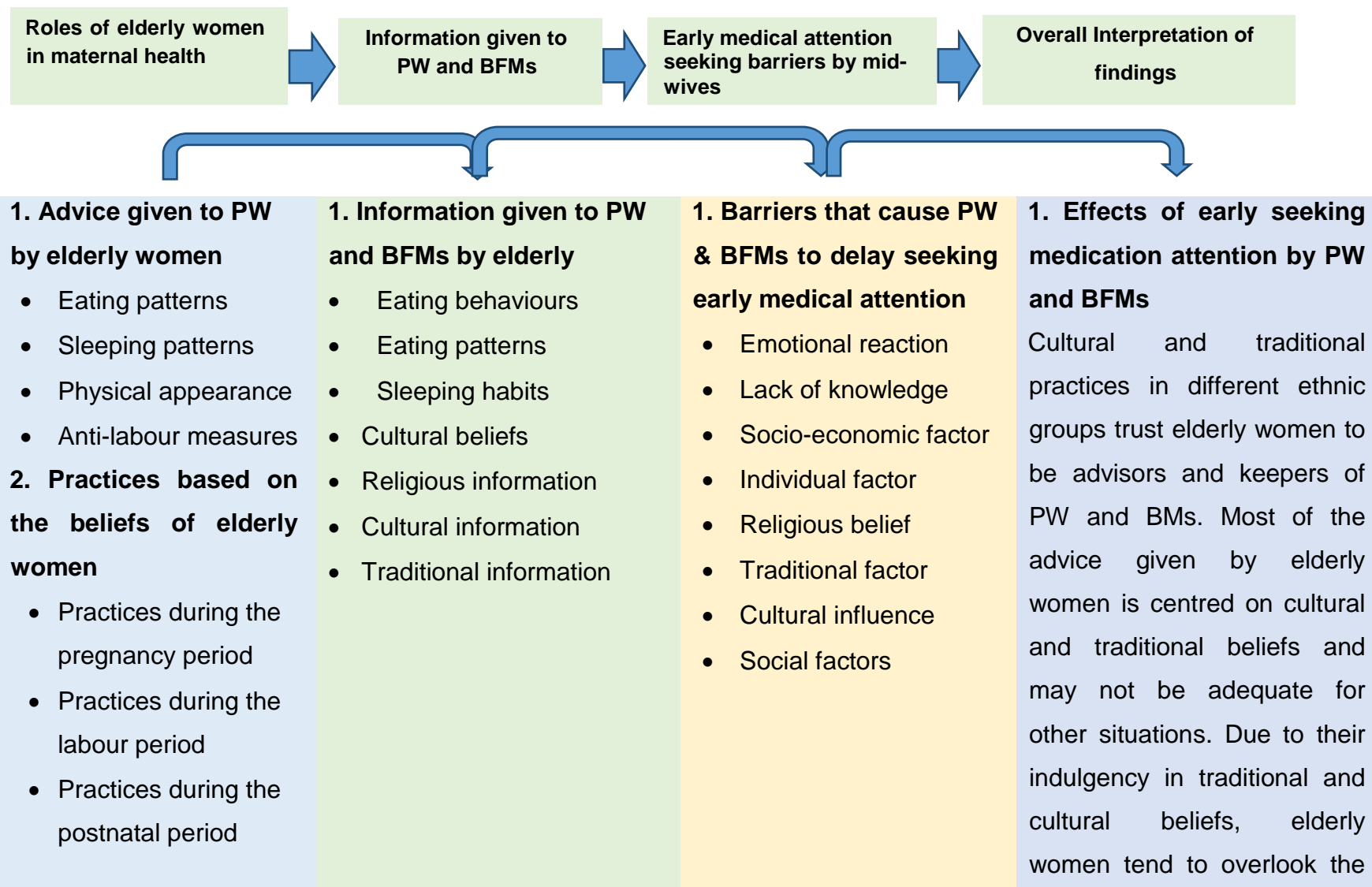
4.12 MERGING OF FINDINGS OF THE STUDY

This study made useful findings from information provided by 1) elderly women on their roles in maternal health, 2) MW on barriers causing PW and BFMs to delay seeking assistance, and 3) from PW and BFMs on the type of information received from elderly women. In this section, the findings from three sections of the empirical study were examined in detail to show areas of common interest in roles played or services rendered by elderly women and how they promote or hinder the maternal health of PW and BFMs. MW views on barriers that prevent PW and BFMs from seeking maternal health assistance to reduce the maternal mortality rate. While findings from elderly women provided insights into their roles in maternal health in South African rural communities exemplified by the Limpopo Province, the findings from PW and BFMs were meant to substantiate the findings from the former primary data sources. The findings from MW allude to the influence of elderly women on PW and BFMs casual approach to maternal health.

The merging involves synthesising findings based on theme and sub-themes on the main ideas expressed and then an evaluation provided to support the initial proposal of development of the training programme for elderly women to improve the reduction of maternal mortality in Limpopo Province. There was clear evidence of overlaps in the findings on the role of elderly women and the information that PW and BFMs purported to have received (see Table 4.17). Findings from MW on barriers preventing PW and BFMs corroborated some of the findings on the role of elderly women and how they interfered with the maternal health of childbearing women. The merging starts by

looking at the common findings of elderly women's thoughts and the information given to PW and BFM's by the same elderly women.

Table 4.17: Merging of study findings and interpretation



importance of advising PW and BFM in medical assistance as early as possible.

Too much emphasis on cultural beliefs likely to lead to reluctance of PW and BMs from seeking medical attention. Strict adherence to cultural and traditional beliefs cause some PWs to hide pregnancy until late when there are complications. This also applies to BFMs under the supervision of elderly women, who may be discouraged from seeking assistance from strangers as a way of protecting the newly born baby from bad omens.

Elderly women dictate what PW and BMs should do,

including when to visit health facilities. PW and BFMs have no power to decide what to do as they must adhere to cultural and traditional values that emphasise the importance of family cohesion rather than health workers who are strangers to them. Elderly women heavily influence PM and BFMs in rural communities, and their naivety makes them overlook maternal health issues. PW and BMs' overreliance on elderly women's traditional, religious and cultural practices puts them at risk. Elderly women only allow PW to visit clinics when their ailment is under control.

3. Support given by elderly women to PW and BFMs

- Support during the pregnancy period
- Support during the postnatal period

2. Information given to PW and BFMs by elderly women

- Dressing habits
- Eating behaviours
- Cultural beliefs
- Religious information
- Cultural information
- Traditional information

2. Barriers that cause PW & BFMs to delay seeking early medical attention

- Religious belief
- Traditional factor
- Cultural influence
- Social factors

2. Effects of support given by elderly women to PW and BFMs of maternal health issues

The support may lead PW and BFMs to believe that they are safe without proper medical attention and foster effort on what elderly women do until it is too late to redeem the situation.

Support provided seem to alleviate economic issues and reinforces traditional, cultural and religious beliefs until the situation deteriorates.

Lack of autonomy and support from the spouse contributes to negative maternal outcomes.

4. Needs for elderly women in participation to maternal health practices

- Need for training
- Need for knowledge
- Advisory role

3. Need for elderly women to be trained on their roles regarding maternal care

- Need for knowledge
- Need for support by elderly women

3. Need for elderly women to be trained by MW

- Training needs
- -Trained on their roles
- -capacitated about the importance of seeking early medical care

3. Deficiencies in elderly women's practices

Elderly women play a vital role in maternal health, but lack of proper knowledge to assist in maternal and child health limits their work

Elderly women lack the formal training to take part in the care of maternal and child health

4.12.1 Discussions

The merged findings indicate that elderly women play an influential role in maternal health in the community, as reported in previous studies (Jacobs, Michelo & Moshabela, 2018; Okereke, Aradeon, Akerele, Tanko, Yisa & Obonyo, 2013; Marabele, Maputle, Ramathuba & Netshikweta, 2020). The study found three essential roles played by elderly women in maternal health; 1) advisory role, 2) participating during pregnancy, labour and after giving birth, and 3) providing constant support to PW and BMs. While playing these roles, elderly women intentionally or unintentionally influence the attitudes, habits, and beliefs of PW and BFs towards seeking medical assistance from health facilities in their vicinities. According to the attestations from elderly women participants, it is their duty to advise PW and BFs on maternal health issues to safeguard the women and the foetus or the child. Such advice is based on religious, traditional, and cultural beliefs. This is corroborated by PW and BFs who, out of ignorance or pressured by economic conditions, blindly follow the advice until it is too late to seek medical assistance from local health facilities. Although some of the advice could work in some instances, it lacks the merit required to safeguard the potential victims when there are complications. According to the MW who acknowledge the role of elderly women's advice to some extent, socioeconomic factors, emotional reactions, and lack of knowledge from PW and BFs make them vulnerable as they cannot evaluate the essence of the advice given. Elderly women are expected to advise PW and BFs on various aspects of maternal health, most importantly seeking professional medical assistance as early as possible. However, this does not happen because when something goes wrong, elderly women whose views are still stuck in old traditions and religious and cultural beliefs either blame the PW and BFs or witchcraft. These findings show that without proper training on professional maternal health, elderly women, who are the immediate persons, will continue providing inaccurate and outdated advice that endangers PW and BFs. This, in turn, will accelerate maternal mortality.

4.12.1.1 Roles of elderly women, information by pregnant women and breastfeeding mothers and barriers

Concerning health practices that elderly women prescribe to PW and BMs, much of it is based on traditional, religious, and cultural beliefs which may not apply to some of the ailments or conditions of pregnancy, mother or baby. Some of the practices may seem similar to those prescribed by modern health; however, they produce undesired results. For example, the prescription of certain behavioural habits, foods, and dressing without medical, and scientific facts supporting it could be detrimental to PW and BMs, even newborns. For example, using traditional medicines to treat PW or newly born babies can be seen as good practice by elderly women, but may bring about consequences that even if medical assistance is sort after, the damage experienced could be irreversible. Usually, traditional medicine doses are unquantifiable and can course harm. This requires elderly women to be trained in the use of modern medicines or even using traditional medicine in such a way it will not harm the victim. According to the MW, elderly women usually act out of ignorance of the likely outcomes of their practices; therefore, training will make them realise the deficiencies in what they do. MW apportion some blame for the lack of adequate maternal education on PW and BMs, who are always under the influence of elderly women. This is consistent with the finding of a study by Okereke et al., (2013) in Nigeria that PW and BMs lack of maternal health education hindered visiting medical facilities to seek assistance timely. Okereke et al., (2013) advocate for vigorous maternal education of PW and BMs by health assistance.

Similarly, this study proposes such advocacy through elderly women who have influence over PW and BMs in rural communities. An attempt by health workers to advise PW and BMs in rural communities bypassing elderly women was less likely to produce the desired effect on maternal health and ultimately reduce maternal mortality. MW alluded to socio-economic challenges faced by most PW and BMs in rural areas, a phenomenon reported in a study by Maswime and Chauke (2022). Due to poverty, PW and BFM depend on elderly people who provide advice; therefore, PW and BFM are likely to follow such advice to continue getting the support needed. Figure 4.1's

conception is a summary of findings on the advisory roles of elderly women and effects on seeking maternal health assistance

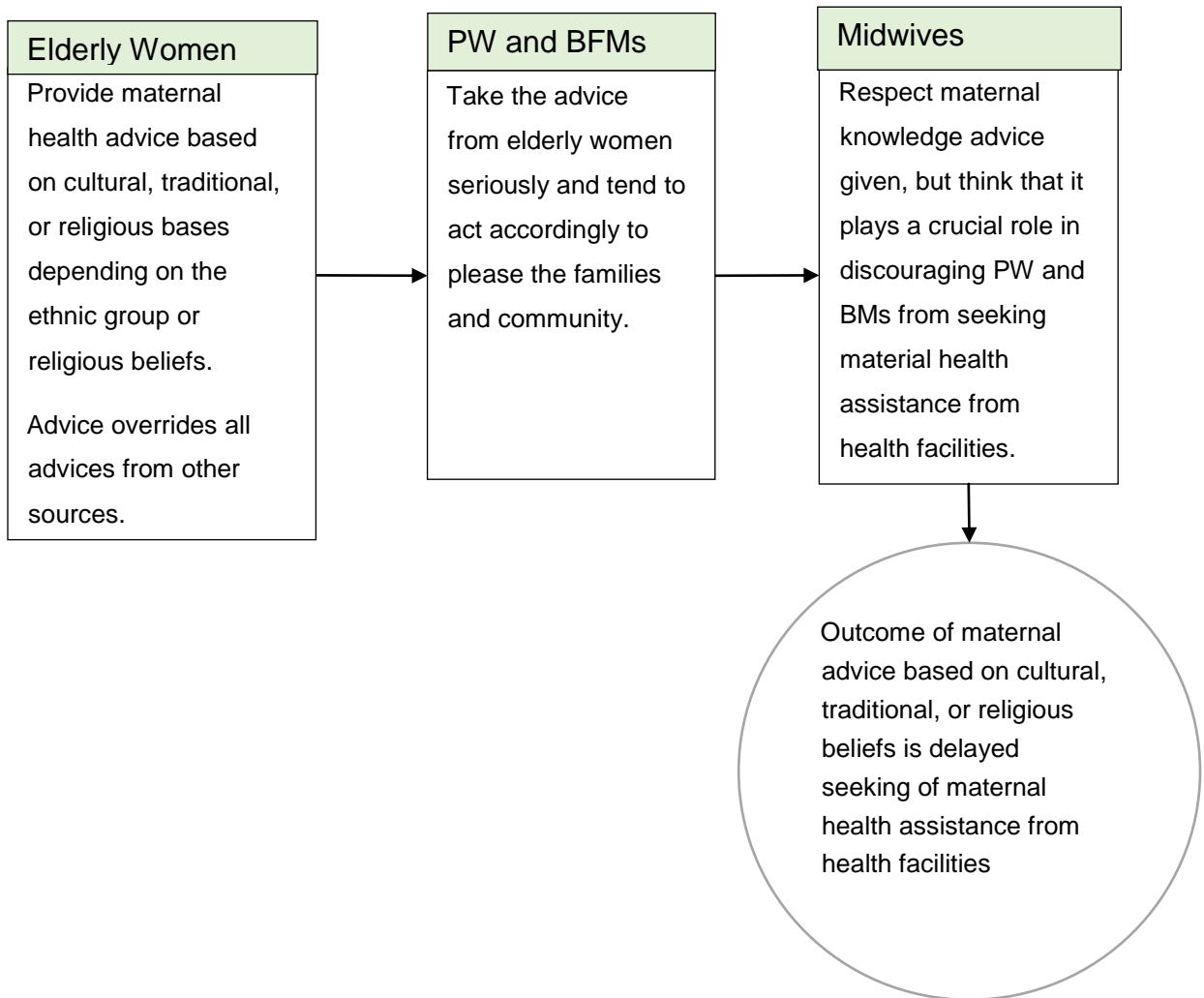


Figure 4.1: Summary of findings on advisory roles of elderly women and effects on seeking maternal health assistance

4.12.1.2 Services provided by elderly women, information by PW and BFMs and Barriers

Elderly women indicated that they provided services during pregnancy, labour, and after birth. This is expected of elderly women because of their role in the family or village and

expected skills and wisdom. Some of these services may fall short of what is expected to improve maternal health and give false impressions to PW and BFMs. Culture, religion, and tradition tend to promote practices parallel to medical practices. Traditional medicine “muti” or “holy water” can be prescribed when something goes wrong during pregnancy or labour. If things get out of hand, a traditional healer or prophet can be called to assist. According to Maswime and Chauke (2022), most (97%) of birth deliveries in South Africa take place in health facilities through professional health assistance, and many complications are experienced by those PW who seek assistance late. The authors identify reasons such as overcrowding in health facilities, mistreatment of women by health staff, travelling long distances, and lack of transport or money. Such challenges cause elderly women to provide services until it is close to the delivery time when they advise the women to seek assistance. The attestation by PW and BFMs confirms that these practices are common while resorting to maternal medical assistance as a last resort. According to Afulani (2020), boredom, too much work, lack of resources, and uncooperating PW and BFMs increase stress among healthcare workers in maternal wards resulting in the mistreatment of patients. Although these could be isolated occurrences, communities usually blow them out of proportion promoting late booking by PW or BFMs not returning for check-ups, thereby relying on alternative services such as those offered by elderly women in rural communities.

On the other hand, PW and BFMs could be unaware of the complications of maternal services for elderly women who lack the required knowledge and skills to provide safe maternal services. The findings from MW indicate that investing in the training of elderly women in maternal health was essential in promoting early booking by PW and encouraging BFMs to return to health facilities for continuous check-ups for the mother and the baby. Promoting such practice in the local communities is expected to reduce maternal mortality in rural health facilities drastically (Ebonwu, Mumbauer, Uys, Wainberg & Medina-Marino, 2018; Maswime & Chauke, 2022).

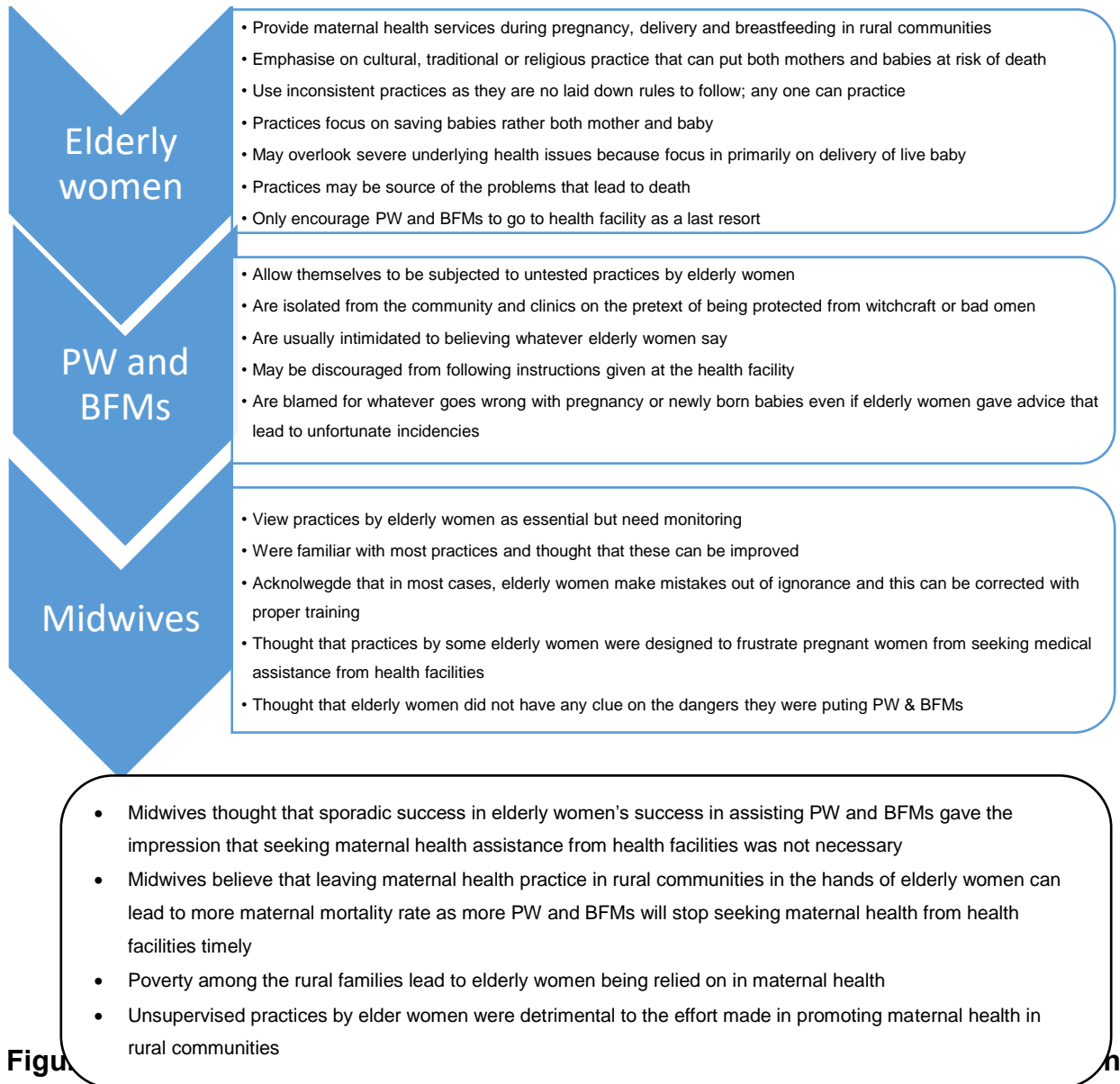


Figure 4.12.1.3: Support provided by elderly women, information by PW and BFMs and barriers in pregnant women and breastfeeding mothers in seeking maternal assistance from health facilities

4.12.1.3 Support provided by elderly women, information by PW and BFMs and barriers

Some cultural, traditional, and religious practices tend to inhibit the PW and BFMs access to maternal health services as they rely much on elderly women or TBAs (Aryastami & Mubasyiroh, 2021). This study confirmed that elderly women provide various forms of support to PW and BFMs, which is always based much on religious,

cultural, and traditional beliefs. According to Aryastami and Mubasyiroh (2021), traditional support can influence the ideal use of maternal healthcare facilities by PW and BFMs because it is within reach and provided by trusted people in the communities. Attestations from PW and BFMs show appreciation for the support provided by elderly women. However, the support provided is not professional and depends on the elderly women's knowledge and skills, which may be against the medical norms and standards. According to PWs and BFMs, support tends to focus on trivial things such as dressing, combing hair, sleeping, and eating habits, which may be biased due to age differences or level of education. Services based on traditional, cultural, and religious beliefs can cause harm to the one for whom it is intended because the provider is not necessarily trained to provide such support. A study by Thipanyane, Nomatshila, Musarurwa and Oladimeji (2022) regards maternal health provided by elderly women (traditional health practitioners) as a necessity as it provides immediate support to needy women in rural communities who may not make it to health facilities. However, the authors recommend proper training for elderly women to be able to assist them whenever there is a need. To improve maternal healthcare utilisation, Aryastami and Mubasyiroh (2021) suggest community empowerment based on a maternal health policy that easily facilitates PW and BFMs to get delivered or treated in a healthcare facility. Due to this, the findings from MW reinforce the need to provide elderly women with basic training so that they follow basic medical requirements when providing support. Such training re-aligns the knowledge and skills that elderly women have in maternal health so that they effectively discharge their duties and encourage PW and BFMs to seek more medical assistance from local health facilities.

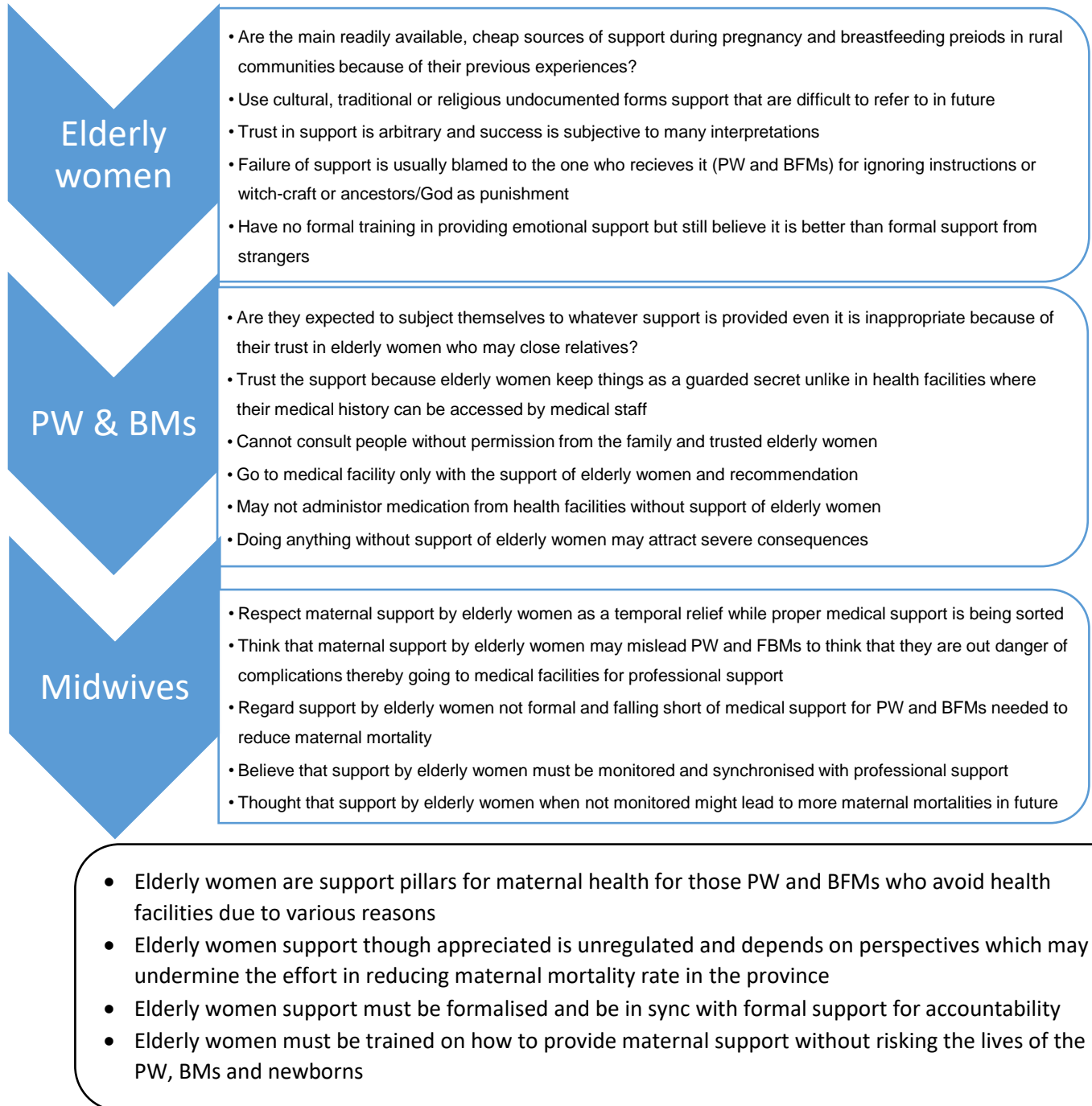


Figure 4.3: **Summary of findings on elderly women support and how it may affect pregnant women and breastfeeding mothers**

4.12.1.4 Needs of elderly women in participation in maternal health practices

Throughout the attestations of focus groups of elderly women, PW, BFM, and MW, the importance of the role played by elderly women in maternal health in rural communities was appreciated. However, the emphasis on cultural, traditional and religious advisory roles, practices and support left PW and BFM exposed to dangers that could easily have been avoided if the elderly women had been trained. According to the MW, the main barriers preventing PW and BFM from seeking maternal medical assistance were multiple factors (see Table 4.14), most of which could be traced to the advice, practice and support provided by elderly women. Culturally, religiously, and traditionally, elderly women have more influence on PW and BFM than medical staff, who are detached from the values cherished in the communities. Most of the advice, practices, and support by elderly mothers fall short of what is expected from medical circles; hence, it cannot be relied on to reduce maternal mortality in these rural communities. The lack of adequate knowledge and skills in medical health resonated profoundly among the participants pointing to the need to train elderly women. In all categories of participants, it was indicated that elderly women needed training in maternal health to improve their knowledge, advisory roles, best practices, and support provided to effectively participate in maternal health in the communities they leave. Elderly women lack formal training in basic maternal health, such as caring for PW, BFM, and newly born babies. Unlike yesteryears, currently, a plethora of diseases and health complications present challenges that require that elderly women who assist in maternal health get basic training so that they synchronise their efforts with that of the local medical staff in health facilities. Based on the findings from this study, harnessing the influence of elderly women through relevant formal training in maternal health can improve the early seeking of maternal health assistance by PW and BFM. Fusing the best from cultural, traditional, and religious practices with formal maternal health practice through elderly women can be achieved through the right training of these women. Based on the findings made in this study, the development of a training guide was proposed.



- Local health facilities have a crucial role to educate elderly women in maternal health and the need to reduce maternal mortality
- A training guide customised for elderly women is needed to improve maternal health in rural communities
- Training needs will focus on key areas of maternal health that elderly women have deficiencies in
- Training should be agreed on by health facilities and the local communities represented by elderly women
- Training needs should be cultural, traditional, and religious practices with the important maternal health practices in order to encourage the participation of elderly women in different rural communities.

Figure 4.4: Summary of findings for training needs

CHAPTER 5

THEORETICAL FRAMEWORK THAT GUIDED THE DEVELOPMENT OF THE TRAINING PROGRAMME

5.1 INTRODUCTION

The previous chapter presented and discussion of qualitative findings. This chapter describes the basis for Phase 2 and synthesises the existing evidence regarding developing a training programme for elderly women to support PW and BFM. This chapter aims to guide the development of the training programme after analysing collected data informed by six elements of practice theory outlined by Dickoff et al., (1968).

5.2 THE THEORETICAL FRAMEWORK FOR THE DEVELOPMENT OF THE TRAINING PROGRAMME

The elements of practice theory outlined by Dickoff et al., (1968) informed the theoretical framework for developing the training programme. The practice-orientated theory outlined by Dickoff et al., (1968) assisted with explaining concepts and analysing the activities aimed at understanding the goal of developing a training programme to improve the reduction of maternal mortality in Limpopo Province. The practice-orientated theory has the following elements:

- Agent (who or what performs the activity?)
- Recipient (who is the recipient of the activity?)
- Context (in what context are the activities performed?)
- Dynamics or motivating factors (interaction, challenges and findings)
- Procedure (what is the guiding procedure or process of the activity?)
- Terminus (what are the end results of the activity?)

The above-stated elements of practice theory outlined by Dickoff et al. (1968) are explained in detail below.

5.2.1 Context (who or what performs the activity?)

Dickoff et al., (1968) refer to context as the environment where the activity is performed. Context is viewed from the aspect of the matrix of activity; it is seen in relation to other things, including persons and other activities, and to see the interrelation of these other factors as constituting an organism, unity, or total context of activity (Dickoff et al., 1968). For this study, participants identified context as a place or setting where the agent and recipient meet to fulfil the activity to be performed within the community. Factors prompting the context within the community are clinics, musanda, and homes.

5.2.1.1 Community

A community is a group that shares common traits and a sense of belonging. It maintains social ties and interactions which shape a distinctive social entity, such as an ethnic, religious, academic or professional community (Joshua, 2012). In the community context, various stakeholders or community structures are comprised of traditional leaders, community leaders, SANCO, church leaders, educators and NGOs. Traditional leaders and other community structures have an influential force among a large majority of communities in Africa (Mararike, 2015). The traditional leadership and Governance Framework Act, 2009 (Act 23 of 2009) permitted traditional leaders and powers to participate in promoting health and welfare.

With respect to the culture and traditional beliefs, this study of traditional leaders and community leaders acknowledges the roles performed by elderly women in the community context. Elderly women offer care and support in participation in maternal and child health, and influence decision-making regarding the utilisation of healthcare services by PW and BFM. Traditional leaders and community leaders also acknowledge the roles performed by MW in the clinic setting concerning maternal and

childbirth. Community members will gain knowledge through active participation in organised workshops by community stakeholders. Thus, elderly women should actively identify cultural values and assess how cultural values impact maternal and child health. Traditional and community leaders should play a vital role in linking the care of PW from the community to healthcare facilities in order to improve the reduction of maternal mortality.

5.2.1.2 Primary healthcare facility

Primary healthcare is the first level of contact for the individual, the family, and the community with the national health system that addresses the main health problems in the community, providing health promotion, preventive, curative and rehabilitative services accordingly (Vhembe District Health Barometer, 2019). Primary healthcare comprises community health centres, clinics, and mobile clinics. Clients receive primary care, such as health advice, medical treatment, and counselling at the clinic; however, they are linked to the hospital for the purpose of referral regarding cases that need special attention. For this study, participants identified clinics as the context where the training programme will be implemented. A clinic is a place where healthcare workers would offer health education related to conditions, preventive measures, treatment of various conditions, and information on seeking early medical attention to prevent complications. Such clinics follow applicable guidelines and protocols to ensure the rendering of quality healthcare service to the community.

5.2.1.3 Musanda (Chief's kraal)

Musanda context, as defined by Madzivhandila (2016), is a place where all the members of the royal family live, the legality of tradition, which includes an entire range of inherited cultural traditions and way of life, a people's history, morals and social values, and traditional institutions which survive to serve those values. Musanda is a place where members of the community gather when there is a call to address certain issues that concern the relevant structure/people. In this study, participants identified Musanda as the context where healthcare workers would gather to meet elderly

women regarding training on their roles in participation in maternal health practices to improve the reduction of maternal mortality. This shows that healthcare workers could utilise Musanda to train elderly women in their roles in order to improve the reduction of maternal mortality.

5.2.1.4 Home

Home is defined as a place where one lives, and of love, that one cannot find anywhere (Association of Housing and Redevelopment in America, 2017). The home structure as context includes parents and members of the extended family. For this study, participants identified home as one of the contexts within which elderly women offer care and support to maternal and child health entrusted by leaders of the community, the community at large, and the rest of the family members. This shows that elderly women attend to the everyday needs of PW and BMs in the home context using their indigenous knowledge. As such, they offer care and support. They have more influence in decision-making regarding the utilisation of healthcare facilities and seeking assistance from traditional healers or prophets when faced with challenges. While it is often overlooked, home as context is an important site of programme delivery. The context for the training programme is indicated in figure 5.1 below.

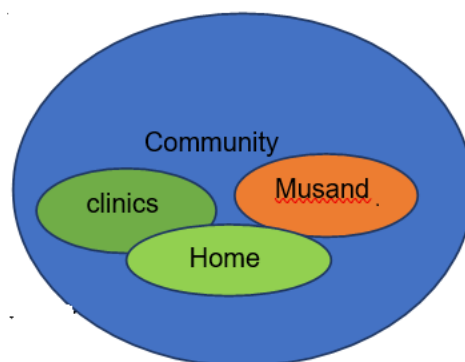


Figure 5.1: Context

5.2.2 Agents – who or what performs the activity?

An agent is someone who acts to realise the goal, a driving force that moves the practice towards achieving its goal, and is also a person or thing that produces a result and takes an active role (Dickoff, et al 1968). For this study, participants identified agents as healthcare workers to play a vital role to improve the reduction of maternal mortality. Healthcare workers identified by participants are MW, registered auxiliary nurses and CHWs.

5.2.2.1 Midwives

A MW is a person who is enrolled and licensed by the South African Nursing Council (SANC) as an independent practitioner who is permitted to practice as a MW in the jurisdiction of South Africa after completing a basic prescribed programme in midwifery (South African Maternal, Perinatal and Neonatal Health Policy, 2021). Couros (2018) views MW as a compound for change and possessing certain qualities such as knowledge and skills that will initiate empowerment to the recipients.

- **Ability to plan, implement and evaluate**

MW as an agent of change should have a positive attitude when planning, implementing and evaluating the developed training programme. In this study, an agent is a MW and nurse educator at a tertiary institution facilitating midwifery in both theory and practice, researcher can plan, and implement a training programme and evaluate the developed training programme.

- **Knowledge**

Kharkar and Bowalekar (2012) refers to knowledge as the fact of information and skills acquired through learning and experience. MW have knowledge in guiding change to the recipients to improve the reduction of maternal mortality.

- **Attitude**

Kharkar and Bowalekar (2012) defines attitude as the human degree of like or dislike and perceptions towards something, one might be positive or negative. In this study, an attitude refers to the view and judgement of MW towards training programmes of elderly women to improve the reduction of maternal mortality. MW have a positive perception of the programme to be developed which will improve the reduction of maternal mortality. In this study, participants identified MW as the agent of change as transpired from the study findings.

5.2.2.2 Auxiliary nurse

Nursing Act 33 of 2005 on regulation regarding the scope of practice for nurses and MW an auxiliary nurse is a person who has met the education requirement for registration as an auxiliary nurse described in the regulations relating to the approval of and the minimum requirements for the education and training of a learner leading to the registration in the category auxiliary nurse, published in Government Notice No. R.169 of 8 March 2013. An auxiliary nurse provides assistance and support to individual patients, families and communities to promote health and promote health in a culturally sensitive manner by effectively communicating health information. An auxiliary nurse must be supervised by a professional nurse, staff nurse, registered nurse and enrolled nurse in situations where there is no prescribed plan of care or set standards. In this study, an auxiliary nurse was identified by participants as an agent who would assist in the development and implementation of a training programme under the supervision of MW to promote the health of the community thereby improving the reduction of maternal mortality.

5.2.2.3 Community healthcare workers

South African Maternal, Perinatal and Neonatal Health Policy (SAMPNHP) (2021) defines a CHW as a community member chosen by community members or an organisation and trained to provide basic health and maternal care services in their

community households within the preventive, promotional and rehabilitative scope. Scott, Beckham, Gross, Pariyo, Rao, Cometto and Perry (2018) established that CHWs assist by standing on a gap between client and professional healthcare workers, aimed at providing a valuable intervention at the household and community level. WHO (2018) refers to community healthcare workers as lay health workers or typically front-line health workers who are responsible for carrying out preventive health interventions that assist in reducing the burden of disease in the vulnerable population through the identification of health needs and giving health education.

For this study, CHWs are regarded as low-skilled health workers identified by participants that could assist professional health workers to address the health needs of the community, as such CHWs would assist MW in implementing a training programme for elderly women to improve the reduction of maternal mortality. Keller, Mc Carthy, Bradford Vosburg, Musonda, Mwila, van der Broek, and Walsh (2017) stated that utilisation of low-level health workers acknowledged expanding access at the community level to primary healthcare services including immunisation, maternal and child health support, HIV/AIDS services, mental health and family planning. Agents in this programme are healthcare workers indicated in figure 5.2 below.



Figure 5.2: Agent

5.2.3 Recipients

Recipients are all the persons who receive actions from agents and benefit from the activity (Dickoff et al., 1968). For this study, participants identified recipients as elderly women and TBAs as caregivers for maternal and child health.

- **Caregivers**

Collins (2022) defines a caregiver as someone who has accepted responsibility for looking after another person or vulnerable neighbours or relatives. In agreement, Anders, Aaron Jackson & Novak (2018) establishes caregivers as supporter and actor on behalf of a client, and perform a rich set of activities that assist in the health of both mother and child.

- **Elderly women**

Absolon (2019) defines the elders as another cornerstone of indigenous knowledge and culture, and as such historical count would be lost without the wisdom, knowledge and experience of elders.

- **Traditional Birth Attendants**

SA MPNH (2021) defines a traditional birth attendant as an individual who assists a mother during childbirth and who initially acquired her skills by delivering babies herself or through apprenticeship to another traditional birth attendant.

For this study, participants identified caregivers as elderly women (mother, grannies or mother-in-law) aged 50 to 70 years and above, taking care of PW and BFM's at home, TBAs who offer care to PW during antenatal, labour and postnatal period. In this study, caregivers are considered beneficiaries of the activities planned by the agent. This is in line with Hlatshwayo (2017) who stated that grandmothers and senior women play a vital role in the management of pregnancy and childbirth. Figure 5.4 below indicates the recipients.

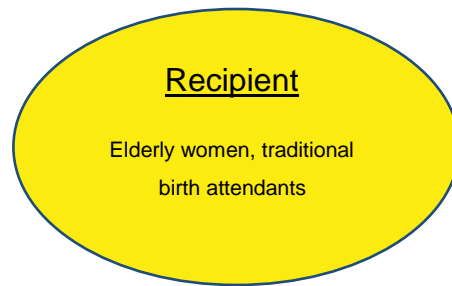


Figure 5.3: Recipients

5.2.4 Dynamics – what is the energy source of the activities?

Dynamic involves the power source for the activities (Dickoff et al., 1968). According to the researcher's understanding, the dynamic is the motivating factor for the activities to be accomplished. These are the energy source that motivates the agents to pursue their activity without getting discouraged. Factors influencing dynamics for this training programme comprised of the following acceptance, willingness and preparedness, effective listening and mutual respect and Ubuntu philosophy.

- **Acceptance**

Acceptance is a term that is understood as a self-regulation strategy based on an open and welcoming attitude towards one's own emotions, thoughts and external events (Rojnarowska, Kobylinska & Lewczuk, 2020; Williams & Lynn, 2010). In this study, an agent and a recipient should have an open heart and positive attitude toward one another for the activities to be successful even when differing in diversity. In this study, agents and recipients need to accept one another and work collectively towards the recognition of the goal to be achieved regardless of differences either culturally or traditionally.

- **Willingness and preparedness**

Willingness refers to the state of being inclined or favourably predisposed in mind, whether individually or collectively, towards specific responses (Barnett, 2015). Preparedness is commonly viewed as consisting of activities aimed at improving

response activities and coping capabilities (Moore, 2012). In this training programme, the agent should be willing and prepared to train the recipient and the recipient should be willing and prepared to be taught to improve the reduction of maternal mortality.

- **Effective listening and mutual respect**

Fotso (2018) establish that listening involves the entire body and mind in trying to extract meaning from both spoken and unspoken messages. Respect is described as the positive conduct of one person towards another (de Gruyter, 2017). Effective listening and mutual respect between elders and healthcare workers will be promoted and as such teamwork will be established thereby encouraging PW to seek early medical attention to prevent complications and to improve the reduction of maternal mortality. Elders will respect healthcare workers as trained personnel regarding the care of maternal and child health. Healthcare workers will respect the elderly women and TBAs in their roles as family caregivers, and render maternal care during pregnancy, labour and the postnatal period.

- **Ubuntu philosophy**

Ubuntu is an African philosophy expressing humanness in the value of compassion, solidarity, harmony, consensus, hospitality, sympathy and sharing among others (Mupedziswa, Rankopo, Mwansa, 2019). Ubuntu is rooted in the saying "I exist because you exist, I am because of others." However, it is believed that an individual is nothing without a community and a community is nothing without the individual (Bidima, 2002 as cited in Chigangaidze, Matanga & Katsuro, 2021). Ubuntu is derived from a Nguni proverb that emphasis "umuntu ngubuntu ngabantu" which means a person is a person through others. Considering the above, this study conceptualised African ubuntu philosophy to improve the reduction of maternal mortality on the following components health promotion, environmental health, and personal hygiene.

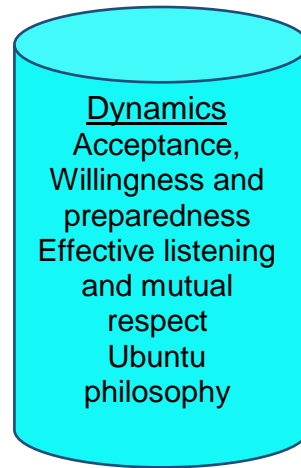


Figure 5.4: Dynamics

5.2.5 Procedure – what is the guiding procedure or process of the activity?

The procedure involves the guiding steps to be taken toward the achievement of a goal (Dickoff et al., 1968). It safeguards the agent, recipient and organisation in that it provides knowledge and as such lessens liability to criticism (Dickoff et al., 1968). For this study, participants revealed the activities that need to be carried out by the agents to inspire elderly women and TBAs to encourage PW to seek early medical intervention. The participants indicated these procedures to inform the agents of the way how they want activities to be carried out. The healthcare professionals, as agents of the study, would offer health awareness, community outreach and conducting home visits and collaboration of services.

- **Health awareness**

Health awareness is defined as a general understanding and knowledge about health, healthcare and its health services, health needs, diseases and preventive measures (Hollard, 2021). The participants indicated that traditional health practitioners should be offered health education regarding maternal and child health to improve the reduction of maternal mortality rates.

- **Community outreach**

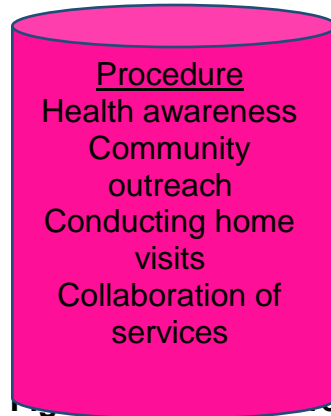
Community outreach is defined as an activity of providing services to any population who might not otherwise have access to the specified services including health support, giving health advice, social planning and other projects for their planning (Fotso, 2018). For this study, participants identified healthcare professionals as relevant people to plan to reach out for give health education for the purpose of reducing maternal mortality rates.

- **Conducting home visits**

Home visits is defined as the process of providing nursing care to patients at their doorstep to maintain their health and reduce morbidity and mortality (Nkuna, 2017). For this study, participants identified CHWs to conduct training for the recipient to improve the reduction of maternal mortality

- **Collaboration of services**

Collaboration refers to a process in which entities share information, resources and responsibilities to jointly plan, and implement to achieve a common goal (Keast, Brown & Mandell, 2017). For this study, participants identify collaboration of services between the elders (mother, mother-in-law and grannies) and TBAs at home and healthcare workers at healthcare facilities that would benefit positive pregnancy outcomes. Different views shared will influence an early referral, consistency in seeking medical attention and sustainability in the reduction of maternal mortality.



5.2.6 Outcome what is the end point of the activity?

Dickoff et al. (1968) define outcome as an activity from the perspective of an endpoint or its accomplishment. For this study participants identified training programmes for elderly women and TBAs to improve the reduction of maternal mortality.

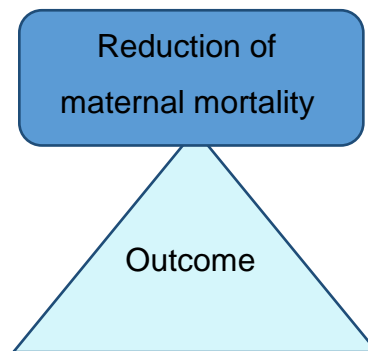


Figure 5.6: Outcome

5.3 TRAINING PROGRAMME DEVELOPMENT

The training programme is organised to enhance knowledge and skills among individuals to be able to perform their job duties optimally. According to the study findings from situational analysis (Phase 1), MW revealed that elderly women and associated factors delay PW from seeking early medical intervention. Literature control and the study's theoretical framework formed the basis for the development of the

training programme in phase 2. The researcher identified that there is no training programme specifically for elderly women (caregivers) in Limpopo Province in participation in maternal and child health. Therefore, the programme is developed to address the gap. The training programme development is guided by the theoretical framework of Dickoff et al. (1968), wherein six elements of practice theory were applied, such as agents, recipients, context, dynamics, procedure, and outcome, were recognised. These concepts were applied to guide the development of the training programme similar to what participants indicated to prevent delay in seeking medical intervention to improve the reduction of maternal mortality. Moreover, the training programme was developed following Kolb's experiential learning cycle. Validation of the developed training programme as outlined in Chinn and Kramer (2019) was considered, namely: clarity, simplicity, generality, accessibility, and importance of the programme.

Theoretical departure and assumptions of the training programme

This study depicted three paradigms of assumptions, namely: meta-theoretical assumptions, theoretical assumptions, and methodological assumptions. These paradigms influenced the assumptions that are essential to the theoretical reasoning of the study and are described as follows:

- **Meta-theoretical assumptions**

Brink, van der Walt and van Rensburg (2017) define meta-theory as assumptions about reality or a theory behind a theory. This meta-theoretical assumptions was based on interpretivism paradigm, the premise of interpretive research is that social reality is influenced by human experiences and social contexts. Researchers who practice interpretivism interpret various aspects of their studies. The subjective interpretivism method focuses on the painstaking collection and analysis of subjective data, which is then presented in a narrative format. In this study, participants were involved in describing the meaning of their roles in participation to maternal health practice. The interpretivism method was used to analyse the data that were gathered for this study.

Since the participants were elderly women who care for PW and BFMs at home, pregnant women, breastfeeding mothers, and midwives who provide care for PW and BFMs at clinics, the information from the participants was deemed reliable because it was gathered from the caregivers and receiver of care.

This study's point of departure is the assumption that delay in seeking medical intervention leads to pregnancy complications. As such, women with pregnancy complications experience negative or poor pregnancy outcomes contributing to maternal and perinatal morbidity and mortality. On the other hand, no woman is supposed to die while giving birth. Furthermore, grounded on the fact that elderly women require information regarding their participation in maternal and child health, the study established that providing health education is necessary for elderly women as caregivers of PW and BFMs. Health education will enhance the knowledge and skills of elderly women to optimise positive pregnancy outcomes. Therefore, the training programme for elderly women is required to prevent delays for PW in seeking early medical intervention to improve the reduction of maternal mortality.

- **Theoretical assumptions**

This study is aligned with the SEM theoretical framework, theorising that it plays a vital role in the psychological and social aspects of human behaviour (Baral et al., 2013), grounded theory for training development by Dickoff et al. (1968) and Kolb's experiential learning cycle (1984), and training evaluation by Chinn and Kramer (2019) The SEM framework is described below.

Social Ecological Model framework

SEM framework is used to understand multiple levels of the social system and interaction between individuals and the environment within their communities. The SEM places the individual at the centre of the model, where levels are nested inside each other. Distinct names are used to refer to each of the five hierarchical nested levels of the model; policy/enabling environment, organisational, community,

interpersonal and individual (intrapersonal) level of human behaviour (Gombachika, Fjeld, Chirwa, Sundby, Malata & Maluwa, 2012; Kagee et al., 2012; Golden & Earp, 2012). Preventing delay for PW seeking early medical attention is complicated as several factors influence delay caused by human behaviour. This is between individuals (PW), interpersonal (elderly women), and the social level. Hence; the training programme was developed to improve the reduction of maternal mortality. These factors are described below.

- **Policy level**

SEM, policy level influences behaviour change (Boulton, Horne & Todd, 2017). Literature shows that local, state, national and global laws, and policies for the allocation of resources for maternal, newborn, and child health and access to healthcare services are in place and must be enforced for behaviour change among individuals, families and communities (Boulton, Horne & Todd, 2017). In this study, the policy level assists in protecting the rights of an individual (PW) and improving the roles of elderly women that could cause a delay in seeking medical intervention, thereby reducing preventable maternal and perinatal morbidity and mortality rates. The policy level is aligned with the following guiding legislation:

- i. **Constitution of the Republic of South Africa, 1996 (Act 108 of 1996)** – The Bill of Rights, as enshrined in Chapter 2 of the Constitution of the Republic of South Africa, provides for the State/DoH to take reasonable legislative and other measures to ensure access and delivery of healthcare services to all citizens.
- ii. **National Health Act, 2003 (Act 61 of 2003)** – Considering the principles contained in the Constitution, the Act provides a framework for a structured, uniform health system to protect, promote, and maintain the population's health. Chapter 5 establishes the District health system based on the principles of primary healthcare.
- iii. **Promotion of Access to Information Act, 2000 (Act 2 of 2000)** – This Act gives effect to Section 32, 'Access to information' of the constitution and allows

for access to or request for information and data from the State or any other body for protection of any right.

- iv. **National Health Insurance (NHI) Bill** – The National Health Insurance (NHIF) plan is South Africa’s version of universal healthcare – where resources are pooled to provide health services for everyone. The comprehensive set of personal health services along the continuum of care will include community outreach, care provided at the PHC level based on the ideal clinic model, health promotion, and prevention.
- v. **Nursing Act (33 of 2005)** – Provides for the regulation of the nursing profession. The Act defines all cadres within the nursing discipline and their scope of practice.
- vi. **National Environmental Health Policy of 2013** – As per Section 24 of the Constitution, through this policy, the government aims to create awareness and prevent and reduce health risks associated with environmental hazards by the promotion of inter-sectoral collaboration and community participation (Section 4.3.7), thereby influencing health outcomes to ensure a long and healthy life for all South Africans.
- vii. **Health Professions Act, 1974 (Act No. 56 of 1974)** – Provides for the regulation of health professions, particularly medical practitioners, dentists, psychologists, and other related health professions, including community service by these professionals.
- viii. **Traditional Health Practitioners Act, 2007 (Act No. 22 of 2007)** – Provides for the establishment of the Interim Traditional Health Practitioners Council and the registration, training, and practices of traditional health practitioners in the Republic.

- **Organisational level**

The organisational level determines the rules, policies, and formal and informal structure an individual or group must adhere to (Gombachika et al., 2012). The organisation includes clinics, hospitals, CHWs, and traditional authorities that assist individuals and communities with health advice and health-related matters. These

organisations assist an individual in behaviour change (Guta, Risenga, Moleki & Alemu, 2018). In this study, MW from the clinics, registered auxiliary nurses, and CHWs would offer training to elderly women and TBAs on their role to improve factors that cause a delay for PW to seek early medical intervention. Therefore, there will be an improvement in the reduction of preventable maternal morbidity and mortality.

- **Community level**

Golden and Earp (2012) emphasise that using SEM enables the researcher to establish which of the community-based interventions were most likely to be effective in solving a prevailing health problem in each community. By advocating the use of SEM in this study, the researcher seeks to establish community activities that would influence the utilisation of healthcare facilities that could be included in the intervention as a measure to reduce maternal mortality. This study revealed that the use of indigenous knowledge by elderly women regarding the care and support of PW contributes to delays in seeking medical intervention. Thus, the training programme is developed to improve the reduction of preventable maternal mortality rates in Limpopo Province.

- **Interpersonal level**

According to Golden and Earp (2012), the interpersonal level describes formal and informal social networks and social support systems that can influence individual behaviours. Likewise, Gombachika et al., (2012) posit that social networks and support systems, including family members, friends, peers, co-workers, religious networks, customs or traditions, could influence behavioural change. However, this study used SEM to determine which interpersonal characteristics of elderly women would have effective activities to be included in the intervention. Interpersonal characteristics of elderly women include traditions and religious networks, as described below.

- **Traditions**

The study revealed that elderly women are rooted in traditional norms inherited from their elders and passed from generation to generation. It involves the installation of fear and loss of life if not adhered to. In this study, elderly women offer advice guiding pregnancy and practices during pregnancy guided by their perspective view of point. Although they again use informal (indigenous) knowledge acquired from their life experience to care for and support PW, the study believes that these activities cause a delay in seeking medical intervention. Therefore there is a need for training for elderly women in participation in maternal health to improve the reduction of preventable maternal mortality.

- **Religious network**

The study revealed that elderly women prefer to first seek religious and spiritual (bio-medical) intervention whenever PW encounter challenges compared to healthcare facilities (medical). Thus, contributing to the delay in seeking medical intervention that leads to pregnancy complications and possible death of both the woman and the fetus.

- **Individual (intrapersonal) level**

The individual level refers to several characteristics of an individual that influence behaviour change (Henderson & Baffour, 2015; Baral et al., 2013;). For example, the impact of individual characteristics of elderly women and those of PW on maternal mortality was investigated as a measure to reduce maternal mortality. These characteristics include knowledge, attitudes, religious identity and socio-economic status.

Grounded theory for the training programme

Phase 1 of this study assisted by SEM, theory guided the study to provide information regarding the roles of elderly women that causes a delay for a pregnant woman to seek early medical intervention and lead to pregnancy complication and death. Training programme development was guided by the six elements of practice theory outlined by

Dickoff et al. (1968), namely: agent, recipient, context, procedure, dynamics, and outcomes. The development of the training programme was informed by Kolb's experiential learning cycle. The training programme was validated according to the approach by Chinn and Kramer (2019) and Walker and Avant (1995) for clarity, simplicity, generality, accessibility, and importance. Relational statements regarding each element of practice theory were utilised to make meaningful claims about the training programme for elderly women to improve the reduction of maternal mortality rates in Limpopo Province.

- **Methodological assumptions**

This study assumed that a qualitative approach, exploratory, descriptive and contextual design using focus groups and an in-depth individual interview was used to meet Phase 1's objectives. Phase 1 objectives were explored regarding the roles of elderly women, information elderly women give to PW, and views of MW on barriers of PW to utilise healthcare services qualitatively to produce data that can provide an understanding of what could be done regarding the roles of elderly women that causes a delay for a pregnant woman seeking early medical intervention. The qualitative approach is suitable for this study as the roles of elderly women, and MW views could not be quantified. Guided by the SEM framework model to answer Phase 1 objectives, it is assumed that training programme development predicts that it might assist and encourage elderly women regarding their role of care and support to PW to seek early medical intervention to prevent complications and possible death. Methodological assumptions include formulating criteria for concepts, structuring and contextualising the programme, identifying and defining concepts, identifying assumptions as part of the programme, clarifying the context, and designing relational statements of the programme. These are described below.

- **Formulating criteria for concepts**

The guideline for criteria provided to reorganise experience is that one needs to represent and differentiate from the same instances. Criteria for the concepts occurred

gradually and continuously as definitions, various cases, other sources, and varying contexts and values were considered. The criteria were refined so that it reflects the intended meaning. The criteria for the concepts used in the programme are described to enhance meaning (Chinn & Kramer, 2019).

- **Structuring and contextualising the programme**

This includes establishing a systemic association between the concepts that end up in a formal theoretical structure. The choice of approach depends on the purpose for developing the programme, what was already known or assumed to be true, and the underlying philosophical ideas about the practices of indigenous knowledge. The interrelationship between the data clusters guided the structure created for the developed programme (Chinn & Kramer, 2019).

- **Identifying and defining concepts**

Structuring the programme concepts is the basis for the programme to be developed. Concepts emerged from collected data and the literature control. Abstract concepts are avoided as they carry a comprehensive meaning. When selecting concepts, relationships between concepts are recognised based on previous research, existing programme, philosophies, and personal experiences (Chinn & Kramer, 2019).

- **Identifying assumptions as part of the programme**

Assumptions are primary matters alleged to be true but not intended to be empirically tested for soundness, though they can be challenged philosophically and investigated empirically (Chinn & Kramer, 2019).

- **Clarifying the context**

This includes putting relationships among concepts within the context of the study (Chinn & Kramer, 2019). The context within which the programme will be applicable is

in the clinics, homes and Musanda within the Vhembe District of Limpopo Province, South Africa.

- **Designing a relational statement of the programme**

A relational statement is the description or nature of the interaction between the concepts of the programme (Chinn & Kramer, 2019). The following relational statements are articulated, guiding the training programme for elderly women to improve the reduction of maternal mortality. They are influenced by six elements of practice theory outlined by Dickoff et al. (1968), findings of the study, and SEM (a human behaviour model):

- The execution of the programme was influenced by the context, namely: clinics, Musanda, and homes where elderly women can be found.
- The agents are the healthcare workers (MW, auxiliary nurses, and CHWs) who render patient care at the clinics and attend to maternity cases.
- The recipient is the elderly women and TBAs who care for PW, BMs, and newborns at home. The agent and the recipient interact with each other in collaboration with services offered to PW to improve the reduction of preventable mortality rates.
- The dynamics that determine the interaction between agent and recipient are acceptance, willingness and preparedness, effective listening, and mutual respect.
- The procedures to be taken concerning the execution of the programme are health awareness, community outreach, conducting home visits, and collaboration of services.

5.4 SUMMARY

The current chapter presented the six elements of practice theory that form the basis of the development of the training programme, as outlined by Dickoff et al., (1968). The application of Dickoff et al., (1968) was based on the study's findings described in

Chapter 4. The agents of this study are healthcare professionals who possess the following characteristics: the ability to assess, plan, implement and evaluate, and have the knowledge and attitude. Recipients are elderly women. Context is the clinic. Musanda and home are where the training programme would be conducted. Dynamics are acceptance, willingness and preparedness, effective listening, mutual respect, and Ubuntu philosophy. The procedures are health awareness, community outreach, conducting home visits, and collaboration of services. The outcome is the reduction of maternal mortality. The next chapter will focus on the development of the training programme for elderly women.

CHAPTER 6

DEVELOPMENT OF THE TRAINING PROGRAMME

6.1 INTRODUCTION

The previous chapter provided a detailed description of the conceptual framework according to the elements of practice theory outlined by Dickoff et al. (1968), whereby the classification of concepts and related statements were discussed. This chapter discusses Phase 2's objectives for the development of the training programme for elderly women. The findings of the data analysis (Chapter 4) and the formulation of the conceptual framework (Chapter 5) led the study to develop the training programme on the basis of the needs that emerged from the themes.

A training programme is planned to enhance knowledge and skills among individuals so that they can perform their work responsibilities well (Kapur, 2018). It is planned to generate awareness among employees regarding the goal and objectives of the organisations (Kapur, 2018). In this study, a training programme refers to planned activities designed for training elderly women to improve the reduction of maternal mortality in Limpopo Province, South Africa.

6.2 OBJECTIVE OF THE STUDY GUIDED THE DEVELOPMENT OF A TRAINING PROGRAMME

Objectives one, two and three of the study for Phase 1 (situational analysis) were aimed at providing a baseline understanding of the roles of elderly women in participation in maternal health practices. The objectives for Phase 1 were as follows:

- To explore and describe the roles of elderly women in the participation in maternal health practices in Limpopo Province, South Africa.

- To explore and describe the experiences of pregnant women and breastfeeding mothers regarding the utilisation of healthcare facilities.
- To explore and describe the views of MW regarding the barriers to delaying pregnant women and breastfeeding mothers from seeking medical attention.

The findings of Phase 1 (situational analysis) conferred that elderly women as caregivers of maternal and child health delay PW in seeking early medical intervention. Traditional and cultural practices, norms and values, and preferred use of indigenous knowledge are the main causes of the delays. Therefore, there is a need for knowledge for elderly women in participation in maternal health practices. The study's findings and theoretical framework (Chapter 5) form the basis of phase 2 for the development of a training programme for elderly women in participation in maternal health practices and phase 3 for validation of the developed training programme. The basic steps for designing a training programme include the title, purpose, objectives, trainer, trainee, structure, and training programme content.

6.3 TITLE OF THE PROGRAMME

The programme is entitled “training programme for elderly women to improve the reduction of maternal mortality rates in Limpopo Province. South Africa.”

6.4 THE PURPOSE OF THE TRAINING PROGRAMME

This programme aimed to empower elderly women in participation to maternal health practices to improve the reduction of maternal mortality in Limpopo Province, South Africa. The study findings revealed the following areas of concern:

- Elderly women influence pregnant women to delay seeking early medical intervention using their indigenous knowledge
- The need for information for elderly women in participation in maternal health practices was identified

- Need for elderly women to know the importance of utilising healthcare services by pregnant women and breastfeeding mothers.
- Elderly women and pregnant women experienced different factors which negatively impacted their access to healthcare services.

The above-mentioned areas of concern must be addressed by capacitating elderly women with knowledge of the importance of utilising healthcare facilities. Therefore, the main aim of this programme is to have knowledgeable women as maternal and child health caregivers regarding the early utilisation of healthcare services to improve the reduction of maternal mortality rates in Limpopo Province.

6.5 OBJECTIVES OF THE TRAINING PROGRAMME

- **To train elderly women on factors influencing pregnant women to delay seeking early medical intervention using their indigenous knowledge**

This objective addresses factors influencing PW to delay seeking early medical intervention. These factors include PW starting to attend ANC from four months when the period of miscarriage has passed; seeking assistance from TBAs, healers and prophets before turning to skilled birth attendants; delaying PW from seeking assistance during labour, evidenced by carrying stones to stop contractions.

- **To train elderly women on the need for information in participation to maternal and child health practices**

This objective addressed the need for information for elderly women as caregivers of pregnant and breastfeeding at home. The information includes diet (not to eat boiled eggs and eat small amounts of food) during pregnancy, discouraging the use of herbs during labour to hasten delivery, and during the postnatal period (to practice exclusive breastfeeding to a newborn and introduction of solid food at six months of age).

- **To train elderly women on the need to know the importance of utilising healthcare services and different factors which had a negative impact on pregnant women and breastfeeding mothers to access healthcare facilities**

This objective addressed the need to know the importance of using healthcare services by elderly women. These include the need for knowledge of why PW should use skilled birth attendants, support for PW to utilise healthcare services, lack of money to pay for transport to healthcare facilities, and long walking distance to healthcare facilities.

6.6 TRAINERS

Trainers are the agents who perform the activity; agents are healthcare professionals; and the researcher is a healthcare professional. This is discussed in detail in Chapter 5.



Figure 6.1: Trainers of the training programme

6.7 TRAINEE

Audiences of the training programme are the recipients of the activity and for whom the training needs have been recognised. Recipients are elderly women, comprising elders, TBAs, and traditional health practitioners. This is discussed in detail in Chapter 5.

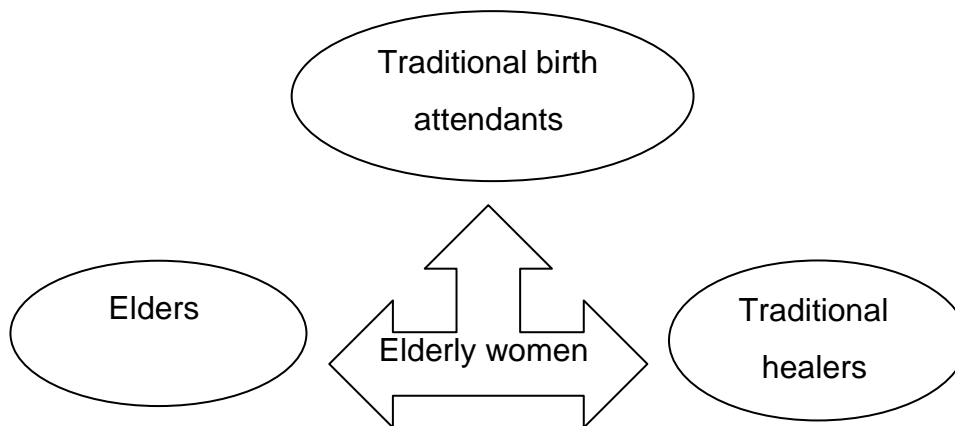
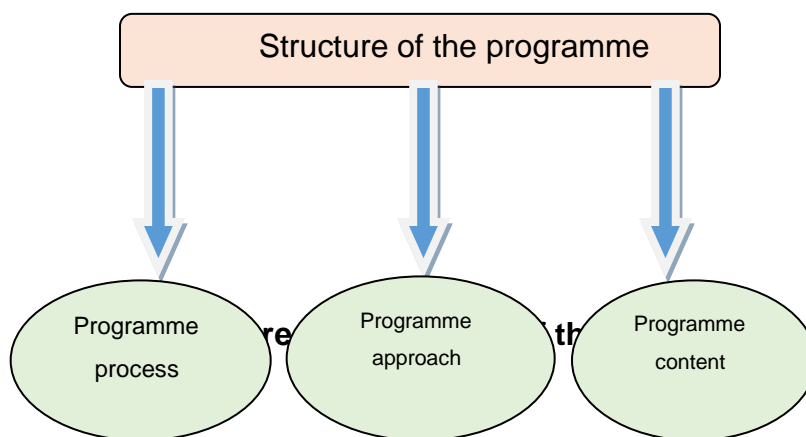


Figure 6.2: Trainees for the training programme

6.8 STRUCTURE OF THE TRAINING PROGRAMME



6.8.1 Programme process

The training programme comprised three phases: orientation phase, working phase, and termination phase. The programme's purpose and objectives were introduced in the orientation phase, and all the logistics were described. These included the venue, date, and time of the workshop. Within the working phase, the presentation of different sessions and group activities designed to capacitate elderly women to improve the reduction of maternal mortality rates was attained. The termination phase included the evaluation of training programme activities.

6.8.2 Programme approach

In Phase 1 of the study objective, situational analysis identified the needs that led to developing the training programme. This was guided by the SEM and elements of practice theory outlined by Dickoff et al., (1968). Different teaching styles were used to facilitate learning and teaching for training the adult participants in managing maternal and child health at home. The theoretical approach was integrated into the development of the training programme used. Kolb's experiential learning theory was relevant to develop the training programme for elderly women.

6.8.2.1 Kolb's experiential learning theory

The experiential learning cycle established by Kolb and Boyatzis (1999) states that participants learn from their direct experiences and through active participation in the activities. McCarthy (2016) defines experiential learning theory as a process of constructing knowledge that involves a creative tension among the four learning abilities, wherein the learner goes through the stage of experience, reflecting, thinking, and acting. Training programme activities were developed based on Kolb's experiential learning cycle. Figure 6.4 below summarises Kolb's experiential learning cycle.

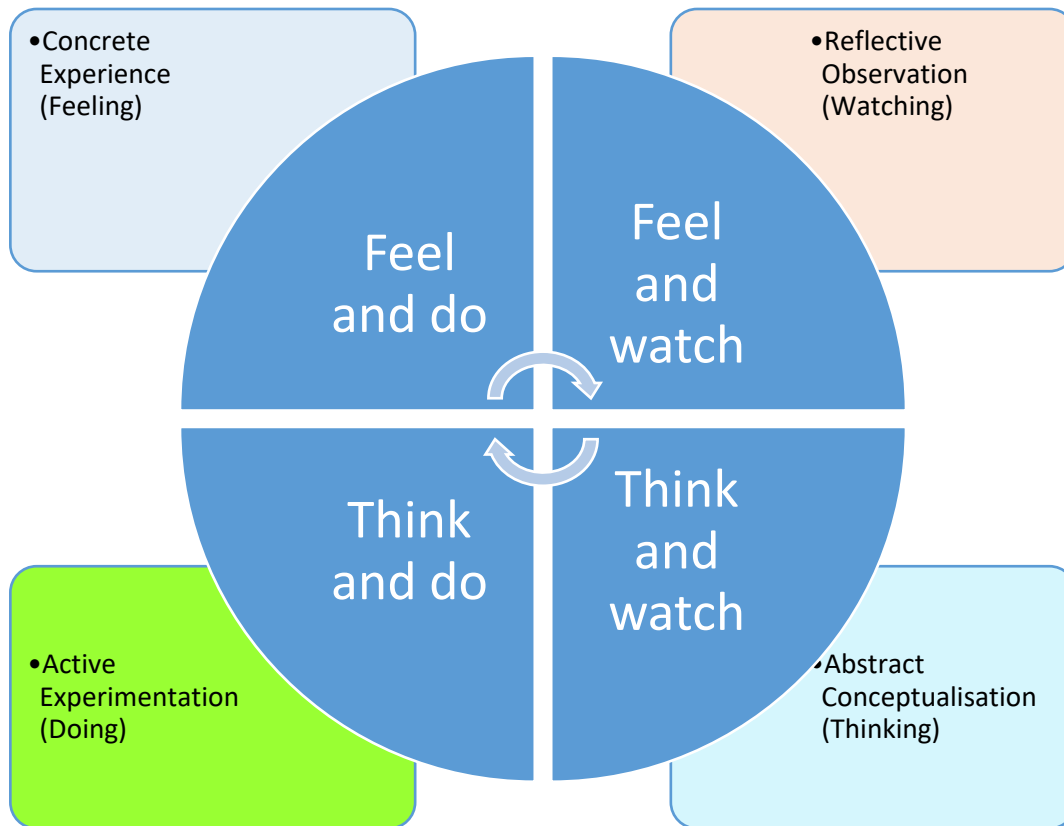


Figure 6.4: Kolb's experiential learning cycle (Kolb, 1984)

Kolb's experiential learning consists of four steps of the learning cycle: concrete experience, reflective observation, abstract conceptualisation, and active experimentation. These steps should be followed in order for one to learn effectively. Kolb's experiential learning steps are briefly discussed below:

- **Concrete experience**

In this stage of concrete experience, the recipient of the activity learns to perform a new or existing task in a new way for learning to occur through doing. In this learning cycle, the recipient acquired new experience on how to participate in the care of maternal and child health.

- **Reflective observation**

Within this stage of the learning cycle, the learner takes a step back from doing to reflect and review. Reflective observations include asking questions. The activity recipient reflects on their own experience, asking questions to understand the difference between the past and new experience.

- **Abstract conceptualisation**

At this stage of the learning cycle, recipients of the activity make sense from what they have experienced and fit in to what they have just learned, whether it makes sense from their existing experience or what they already know.

- **Active experimentation**

During this stage of the learning cycle, the recipients plan to use what they have just learned, and consider putting it into practice.

6.9 THE CONTENT OF THE TRAINING PROGRAMME

The programme's learning content was based on the themes and sub-themes that emerged during data analysis in Chapter 4 of this study. The findings in Chapter 4 were captured in the theoretical framework in Chapter 5. The outline of the training programme content focused on improving elderly women's knowledge and experience in participation in maternal and child health practices. The structure of the table is presented in Table 6.1 below.

Table 6.1: Structure of the training programme

Title: Training programme for elderly women to improve the reduction of maternal mortality rates in Limpopo Province, South Africa.
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Purpose: To empower elderly women regarding their roles in participation in maternal health practices to improve the reduction of maternal mortality rates in Limpopo
--

province, South Africa.	
Objectives of the programme	<ul style="list-style-type: none"> • To train elderly women on factors that influence PW to delay seeking early medical intervention using their indigenous knowledge. • To train elderly women on the need for information in participation in maternal and child health practices. • To train elderly women on the need to know the importance of utilising healthcare services by PW and BMs. • To train elderly women on different factors that negatively impacted PW to access healthcare services.
Duration of the programme	<ul style="list-style-type: none"> • Three days
Learning assumed to be in place	<ul style="list-style-type: none"> • No admission rules are set to enrol elderly women on this programme as they possess basic knowledge regarding maternal and child care.
Specific learning outcome	<p>At the end of the training, elderly women should be able to:</p> <ul style="list-style-type: none"> • Label food recommended for maternal and child health • -Identify risk associated with delay in seeking medical intervention • -Explain the importance of utilising skilled birth attendants • Describe factors which negatively impact pregnant women not to utilising health care services. • Apply new skills to their roles in participation to maternal health practices

Course content	<ul style="list-style-type: none"> • Advises given to pregnant women by elderly women • Practices based on traditional and cultural beliefs of elderly women • Need to know the importance of utilisation of healthcare facilities and their negative impact
Facilitators	<ul style="list-style-type: none"> • Healthcare professionals
Target population	<ul style="list-style-type: none"> • Elderly women
Teaching methods	<ul style="list-style-type: none"> • Lecture presentation • Poster presentation • Group discussions • Debating
Assessment methods	<ul style="list-style-type: none"> • Lesson evaluation • Oral questions • Feedback during group discussions and debating

6.10 DESCRIPTION OF THE CONTENT

The training programme's content description is based on the objectives to be achieved, closing the gaps identified during data analysis (Phase 1), and providing elderly women with new information that will assist in participation in maternal health practices. It is a non-credit-bearing short programme, which covers less than one credit towards a unit standard according to the South African Qualification Authority (SAQA) requirements for National Qualification Framework (NQF) levels. There will be no formal assessment of the module; only oral assessment will be made during facilitation, peer assessment, and small group activities during feedback. The description of the training programme adopted by the relevant SAQA guidelines for the short programme includes:

- Name of the programme

- Purpose of the programme
- Duration of the programme
- Learning outcomes
- Programme content

6.10.1 Name of the programme

It is a short course “training programme for elderly women.”

6.10.2 Purpose of the programme

The purpose of the programme is to empower elderly women regarding their roles in participation in maternal health practices to improve the reduction of maternal mortality rates in Limpopo Province.

- **Specific learning outcomes of the programme**

Specific learning outcomes were developed to address the identified gaps from the emerged theme and sub-themes during data analysis. At the end of the training programme, elderly women should be able to:

- Identify food recommended for maternal health and the fetus
- Identify risks associated with delay in seeking medical intervention
- Describe the importance of utilising skilled birth attendants at healthcare facilities
- Describe factors which negatively impact pregnant women in utilising healthcare facilities
- Apply new skills to their roles in participation to maternal health practices

6.11 SPECIFIC TRAINING PROGRAMME CONTENT

The training programme for elderly women is consolidated into one module content with three study units. The programme content is outlined below:

- Study unit purpose
- Study unit objective
- Specific learning outcomes
- Content of the subject matter
- Teaching strategies
- Assessment methods
- Learning materials

6.12 CONTENT OF THE MODULE IN THE PROGRAMME

Module: The roles of elderly women in participation in maternal health practices

6.12.1 Study unit 1: Advice given to pregnant women by elderly women

- Diet during pregnancy
- Exclusive breastfeeding for the newborn
- Introduction of complementary feeding to a newborn

6.12.2 Study Unit 2: Practices based on traditional and cultural beliefs of elderly women

- Risk factors associated with late booking for antenatal care
- Use of herbs during labour and postnatal period
- Risk factors associated with the use of non-skilled birth attendants

6.12.3 Study Unit 3: The need to know the importance of utilising healthcare facilities and the negative impact towards the utilisation of healthcare facilities

- The importance of utilising healthcare facilities
- Support for pregnant women to utilise healthcare facilities
- Long walking distance to the healthcare facility
- Lack of money
- Lack of transport

DAY 1 OF TRAINING

Study unit 1: Advice given to pregnant women by elderly women

This study unit aimed at assisting elderly women in having knowledge and understanding of the dietary pattern of PW.

Activity 1: Dietary pattern

Purpose of the study unit

The purpose of the study unit is to capacitate elderly women to know about diet during pregnancy and childbirth, exclusive breastfeeding for the newborn, and the introduction of complementary feeding to a newborn.

Learning outcome

At the end of this study unit, the learner should be able to:

- Describe recommended diet during pregnancy
- Describe the importance of exclusive breastfeeding for the newborn
- State when to start with complementary feeding to the baby

Activity 1.1: Diet during pregnancy

Specific learning outcome

- Identify the components of food
- Define the components of food
- Describe the functions of food

Description of the content: Food constituent

Introduction

Food helps in the growth and development of the body. To keep ourselves healthy, we should maintain a well-balanced diet. Food strengthens our immunity and protects our bodies from diseases, fatigue, and poor performance. Children deprived of healthy foods may face growth and developmental issues, poor academic performance, and are prone to persistent infections. A well-balanced diet comprises foods from all the major food groups to provide the body with ideal nutrition.

Benefits of consuming a well-balanced diet

- Growth and development
- Lower risk of illness
- Improved energy levels
- Decreases depression and anxiety
- Maintains weight
- Boost immune system

Components of food

Food comprises different components of a well-balanced diet: carbohydrates, protein, fats, vitamins, minerals, and water. These components of a well-balanced diet are described below.

- **Carbohydrates**

Carbohydrates are a vital source of energy. Most of our energy needs are met by carbohydrates. Carbohydrates account for 60% of an individual's diet, such as whole grains, wheat, millet, brown rice, etc.

- **Protein**

Proteins are essential for growth and development during various stages of life. Protein is needed to assist the body in repairing cells and making new ones. About 25% of daily calories should come from protein such as legumes like kidney beans, milk and milk products, eggs, fish, etc.

- **Fats**

Fats are important for storing and providing vitamins and synthesise hormones. Fats contribute to about 15% of daily caloric needs and are a major source of energy. Good sources of fats for daily diet can come from polyunsaturated fats such as flax seed, sunflower seed etc., whereas monosaturated fats are olive oil, sesame oil, etc.

- **Vitamins and minerals**

Vitamins and minerals are micronutrients that support metabolism, nerve and muscle function, bone maintenance, and cell production. Fruits and vegetables are the major sources of vitamins and minerals, including potassium, iron, folate, and vitamins A and C.

- **Water**

Water is a major nutritional component that helps regulate body temperature, lubricate joints, and protects major organs and tissue. In addition, water aids in transporting oxygen throughout the body. The body needs at least eight glasses of water daily.

- **General functions of food**

Choosing a balanced diet is a vital step towards leading a happy and disciplined lifestyle. A balanced diet can safeguard the body against certain types of chronic diseases, such as obesity, diabetes, heart disease, cancer, and other conditions. A healthy or balanced diet supports and maintains an ideal body weight and improves emotional and mental well-being.

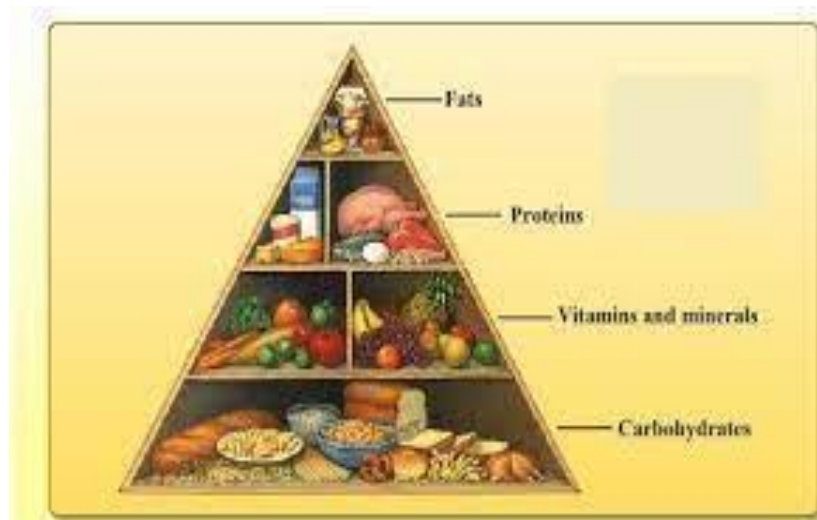
- **Specific functions of food constituents**

Carbohydrates provide energy to the body

Fats store energy, protect, and insulate the important organs

Proteins act as enzymes and hormones that assist in metabolism

Vitamins and minerals help the body fight against disease and also help to keep eyes, gums and bones healthy



- **Teaching approaches**

This unit will be taught through lectures, poster presentations, and group discussions.

- **Assessment method**

Learners will be assessed through peer assessment and feedback during group discussions.

- **Conclusion**

A well-balanced diet is necessary for the mother's health and the fetus's growth and development. The study's findings in Chapter 4 revealed that elderly women discourage PW from eating boiled eggs, as it is associated with painful and prolonged labour. Activity 1.1 highlights the food constituents and their functions to enlighten elderly women on their roles in maternal health concerning diet.

Activity 1.2: Description of the content: Exclusive breastfeeding

Specific learning outcome

- Define exclusive breastfeeding
- Describe the benefits of exclusive breastfeeding
- Define the steps for successful breastfeeding

Description of the content

- **Define exclusive breastfeeding**

Exclusive breastfeeding is when other foods or fluids are not allowed for newborn babies.

- **Describe the benefits of exclusive breastfeeding**

It provides the ideal nutrition for infants. It has the perfect mix of vitamins, proteins, and fats – everything the baby needs to grow

It is digested than formula milk

It has antibodies that help your baby fight off viruses and bacteria

It lowers the risk of your baby having asthma or allergies

Babies who are exclusively breastfed have fewer infections, especially respiratory illnesses and bouts of diarrhoea

They have fewer hospital trips or visits to the doctor

- **Define the steps for successful breastfeeding**

It provides the ideal nutrition for infants. It has the perfect mix of vitamins, proteins, and fats – everything the baby needs to grow

It is digested than formula milk

It has antibodies that help your baby fight off viruses and bacteria

It lowers the risk of your baby having asthma or allergies

Babies who are exclusively breastfed have fewer infections, especially respiratory illnesses and bouts of diarrhoea

They have fewer hospital trips or visits to the doctor

- **Teaching approaches**

Activity 1.2 will be taught through facilitation, group discussions, and reflective learning.

- **Assessment methods**

Learners will be assessed through peer assessment and feedback during group discussions.

- **Conclusion**

Activity 1.2 will enlighten the elderly women on their advisory role for BMs to practice exclusive breastfeeding for the first six months of life. Mixed feeding for a newborn exposes the baby to sicknesses. The findings of the study revealed that elderly women

feed the newborn immediately after the baby is born. They believe that the baby is born hungry as the mother was getting a small amount of feeding. This also helps to strengthen the umbilical area of the newborn.

Activity 1.3: Description of the content: Introduction of complementary feeding

Specific learning outcome

- Define complementary feeding
- Describe the kind of complementary food to be introduced
- Identify the benefits of complementary food

Description of the content: complementary feeding

- **Define complementary feeding**

Complementary feeding is a process when breast milk alone or infant formula alone is no longer sufficient to meet an infant's nutritional requirements, and other foods and liquids are needed, along with breast milk or a breast milk substitute (Kimani-Murage & Zerfu, 2019).

- **Describe the kinds of complementary foods to be introduced to the young infant**

Complementary food can be a thick porridge made out of maize, cassava, millet, or soya flour. Sugar, oil, milk, groundnuts, eggs, and fruits can be mixed into the porridge. Mashed food is a mixture of food like matooka, potatoes, cassava, posho (maize or millet), and fish, meat, beans or groundnuts, or simsim paste. In addition, a baby should be fed vegetables like greens, pumpkin, carrot, eggplant, avocado, or tomato.

- **Identify the benefits of complementary food**

As recommended by WHO (2016), complementary feeding should be commenced at six months of age. This food ensures healthy growth and development of children through a variety of nutritious food introduced in addition to breast milk.

Good nutrition care and hygiene are necessary to prevent children from becoming too short for their age.

Maintaining the child's health and strength through breast milk is important to their baby's diet.

- **Teaching approaches**

Activity 1.3 will be taught through lectures and peer group discussions.

- **Assessment methods**

Learners' assessment strategies will be conducted through lesson evaluation and feedback during peer group discussions.

- **Conclusion**

The introduction of complementary food is important for elderly women to know to prevent constipation and distention of the abdomen for a neonate.

- **Learning materials**

Ramulondi, M., de Wet, H., & Ntuli, N. R. 2021. Traditional food taboos and practices during pregnancy, postpartum recovery, and infant care of Zulu women in northern KwaZulu-Natal. *Journal of Ethnobiology and Ethnomedicine*.
<https://doi.org/10.1186/s13002-021-00451-2>

Riang'a, R. M., Nangulu, A. K., & Broerse, J. E. W. 2018. Perceived causes of adverse pregnancy outcomes and remedies adopted by Kalenjin women in rural Kenya. *BMC Pregnancy and Childbirth*, 18(408), 1–9.

Tsegaye, D., Tamiru, D., & Belachew, T. 2021. Food-related taboos and misconceptions during pregnancy among rural communities of Illu Aba Bor zone, Southwest Ethiopia. A community-based qualitative cross-sectional study. *BMC Pregnancy and Childbirth*.

<https://doi.org/10.1186/s12884-021-03778-6>

Dey, S. 2022. *The global foods and recipes book: Introduction*.

Kimani-Murage, E. W., & Zerfu, A. Z. 2019. Trends in personalized nutrition.

World Health Organization. 2016. *Recommendations on antenatal care for a positive pregnancy experience*. Available at:

[Apps.who.int/iris/bitstream/handle/10665/250796/9789241549912\\$4ng.pdf](https://apps.who.int/iris/bitstream/handle/10665/250796/9789241549912$4ng.pdf).

DAY 2 OF TRAINING

Study unit 2: Practices based on traditional and cultural beliefs of elderly women

Purpose

To empower elderly women regarding practices based on their indigenous knowledge so that the identified gap raised during data analysis in Chapter 4 can be corrected.

Learning outcomes

At the end of this lesson, the learner should be able to:

- Identify risk factors associated with late bookings for antenatal care
- Describe the effects of the use of herbs during labour and the postnatal period
- Identify risk factors associated with the use of non-skilled birth attendants

Activity 2.1

Description of the content: Factors associated with late bookings for antenatal care

- **Purpose**

Late booking is a serious challenge, especially in most parts of a rural community where culture is practised. Elderly women influence the commencement of antenatal bookings, the use of herbs, and risks associated with non-skilled birth attendants.

Specific learning outcome

At the end of the lesson, the student should be able to:

- Identify risk factors associated with late bookings of antenatal care
- Determine the importance of attending antenatal care

Introduction

ANC is vital for every pregnant woman to attend for screening for diseases to prevent complications. Maternal guidelines for maternity care recommend that PW should start to book ANC before 12 weeks gestation.

Risk factors associated with the late booking of antenatal care

- Late antenatal care initiation is linked to a higher maternal morbidity and mortality risk.
- Women who do not start ANC at an early stage may experience the effects of pregnancy-related health difficulties, long-term health issues, and pregnancy complications.

Determine the importance of attending antenatal care

- Antenatal care detects high-risk pregnancies and educates mothers to have healthy births and results.
- Antenatal care is critical for the health of both the mother and the developing child.

- Women may learn about appropriate habits throughout pregnancy from competent health staff, better comprehend warning signals during pregnancy and delivery, and obtain social, intellectual, and psychological assistance during this important period in their lives through this type of preventative healthcare.
- Pregnant women can also get vital vitamin supplements, hypertension therapy to avoid eclampsia, and the tetanus vaccine through prenatal care.
- HIV tests and drugs can be provided as part of ANC to minimise HIV transmission from mother to child.
- Pregnant women in malaria-endemic areas can be given medication and insecticide-treated mosquito coils to help avoid sickness, which is often fatal.

Teaching approaches

This unit will be taught through facilitation, reflective learning, and group discussions.

- **Assessment methods**

Assessments will be done through the posing of questions and feedback during group presentations.

- **Conclusion**

Culturally, elderly women encourage PW to delay booking ANC, fearing that jealous people will cause miscarriages, as revealed by the study's findings in Chapter 4. This activity will empower elderly women to change their way of doing things.

Activity 2.2: Use of herbs during labour and postnatal

Specific learning outcome

At the end of the lesson, the student should be able to:

- Describe the use of herbal drugs during preconception, pregnancy, labour, and the postnatal period.

Introduction

The use of herbal medicine by PW varies among different countries and cultures. The consumption of herbal medicine by PW has been reported worldwide as it is believed safe; however, it has been associated with harmful effects on the mother and child's life.

Description of the content:

- **Describe herbal drugs used in preconception, pregnancy, labour and the postnatal period**

The prevalence of the consumption of herbal drugs to enhance pregnancy, the use of herbs during pregnancy, labour and the postnatal period is known and has been reported (Kam, Barnett & Douglas, 2019). Herbal medicine treats some of the symptoms during pregnancy and continues up until the postnatal period. However, herbal drugs have been associated with harmful effects due to toxicity, toxic constituent, and contamination. Literature has described the use of herbal drugs to relieve pregnancy-related symptoms like nausea and vomiting, stress and back pain, and preparation for labour by inducing labour in post-term pregnancy.

- **Teaching approaches**

This unit will be taught through facilitation, reflective learning, and group discussions.

- **Assessment methods**

Learners will be assessed through oral questions and feedback during group discussions.

- **Conclusion**

The use of herbal medicine during pregnancy and childbirth is most preferred, especially in rural areas that are deeply rooted in cultural practices. However, PW do not disclose the issue of herbal consumption to healthcare professionals whenever they face complications.

Activity 2.3: Risk associated with the use of non-skilled birth attendants

Specific learning outcome

At the end of the lesson, the student should be able to:

- Identify risks associated with the use of non-skilled birth attendants
- Differentiate between skilled and non-skilled birth attendants

Introduction

The use of non-skilled birth attendants is associated with barriers for PW to access healthcare facilities. Factors contributing to a high level of home deliveries at the individual level include a lack of decision-making autonomy and socio-demographic and economic status. In addition, physical and socio-economic barriers, including living far from health facilities and lack of transport, may encourage women from seeking assistance from non-skilled birth attendants.

Description of the content:

- **Risks associated with the use of non-skilled birth attendants**

Literature indicates that home deliveries are one of the contributory factors of maternal and neonatal deaths in developing countries.

Home delivery increases the risks of long-term maternal morbidities, such as uterine prolapse, pelvic inflammatory disease, fistula, incontinence, and infertility.

- **Differentiate between skilled and non-skilled birth attendants**

A skilled birth attendant is an accredited health professional, such as a MW, doctor or nurse, who has been educated and trained to proficiency in the skills needed to manage normal (i.e., uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of women and

neonates for complications (WHO, 2016). TBAs, whether trained or not, are excluded from the category of “skilled attendant at delivery”, defined by the WHO (2016) as “a person who assists the mother during childbirth and who initially acquired her skills by delivering babies herself or through apprenticeship to other traditional birth attendants.”

- **Teaching approaches**

The unit will be taught through facilitation, group discussions, and reflective learning.

- **Assessment methods**

Learner assessment will be assessed through oral tentamens and feedback during group discussions.

- **Conclusion**

Home deliveries are not readily recommended, given that most complications during labour are unpredictable. However, elderly women can conduct home deliveries without formal training.

- **Learning materials**

Sarker, B. K., Rahman, M., Rahman, T., Hossain, J., Reichenbach, L., & Mitra, D. K. 2016. Reason for preference of home delivery with traditional birth attendance in rural Bangladesh: A qualitative exploration. *PLoS One*.

Riang’a, R. M., Nangulu, A. K., & Broerse, J. E. W. 2018. Perceived causes of adverse pregnancy outcomes and remedies adopted by Kalenjin women in Rural Kenya. *BMC Pregnancy and Childbirth*, 18(408), 1–9.

Aziato, L., & Omenyo, C. N. 2018. Initiation of traditional birth attendants and their traditional and spiritual practice during pregnancy and childbirth in Ghana. *BMC in Pregnancy and Childbirth*, 18, 64. <https://doi.org/10.1186/s12884-018-1691-7>

Mekonnen, T., Dune, T., Perz, J., & Ogbo, F. A. 2021. Trends and predictors of the use of unskilled birth attendants among Ethiopian mothers from 2000 to 2016. *Sex Reprod Healthc*. Doi: 10.1016/j.srhc.2021.100594.

Ozioma, E. J., & Chinwe, O. A. N. 2019. Herbal medicines in African traditional medicine. *Herbal Medicine*, 10, 191–214.

DAY 3 OF TRAINING

Study unit 3: The need to know the importance of utilising healthcare facilities and the negative impact towards the utilisation of healthcare facilities

Purpose

This study unit aimed at assisting elderly women to have knowledge and understanding on the need to know the importance of utilising healthcare facilities by PW

Learning objectives

- Identify the importance of utilising healthcare facilities
- Barriers contributing to the utilisation of healthcare services

Activity 3.1

Introduction

Healthcare facilities play a vital role in preserving life under preventive, promotion, and rehabilitation. PW utilisation of healthcare facilities improves the health of the women and the baby.

Specific learning outcome

At the end of this study unit, the learner should be able to:

- Define healthcare facility
- Outline the importance of utilising healthcare facilities

Description of content

- **Define healthcare facility**

The healthcare facility is a facility that usually provides primary healthcare services, 24-hour maternity, accident, and emergency services (KwaZulu-Natal DoH, 2001).

- **Outline the importance of utilising healthcare facilities**

Access to healthcare facilities is important for:

- Overall physical, social, and mental health status
 - Disease prevention
 - Detection of diseases, diagnosis and treatment of illness
 - Quality of life
 - Avoiding preventable deaths
 - Life expectancy
 - Healthcare facilities help prevent diseases and improve quality of life
 - Investigated women's utilisation of family planning, antenatal care, HIV testing, etc.
 - Primary healthcare, which includes promotive, preventive, curative and rehabilitative services
- **Teaching approaches**

This unit will be taught through facilitation, reflective learning, debating, and group discussions.

- **Assessment methods**

Learners will be assessed through oral questions and feedback during group discussions.

- **Conclusion**

It is paramount to seek early medical intervention at healthcare facilities with skilled birth attendants. Elderly women, through this training programme, will refer PW and BFMs to healthcare facilities.

Activity 3.2

Specific learning outcome

At the end of this study unit, the learner should be able to:

- Describe barriers to accessing healthcare facilities

Introduction

Most rural communities experience challenges when access to healthcare facilities. In addition, some factors may delay healthcare access even when healthcare exists in the community.

Description of content

Describe barriers to accessing healthcare facilities

- Distance to healthcare facilities – some of the healthcare facilities are far from homes to the extent that PW have to travel long distances to access healthcare services
- Transportation – lack of transport due to poor road infrastructure

- Lack of money to pay for transport and services – poverty contributes to a lack of money to pay for transport to access healthcare services
- Workforce shortages – standing in long queues at the facilities discourages pregnant women from accessing healthcare services

Teaching approaches

This unit will be taught through facilitation and group discussions.

Assessment methods

Learners will be assessed through questions and feedback during group discussions

Conclusion

The above are barriers to accessing healthcare facilities by PW; elderly women contribute due to traditional and cultural practices and that their services are always available, accessible, and inexpensive.

Learning materials

Namatovu, H. K. 2018. *Enhancing antenatal care decisions among expectant mothers in Uganda*. University of Groningen, SOM Research School.

Sanders, R. A., & Crozier, K. 2018. How do informal information sources influence women's decision-making for birth? A meta-synthesis of qualitative studies. *BMC Pregnancy and Childbirth*, 18(21), 1–26.

Roberts, J., Marshak, H. H., Sealy, D., Manda-Taylor, L., Mataya, R., & Gleason, P. 2016. The role of cultural beliefs in accessing antenatal care in Malawi: A qualitative study. *Public Health Nursing*, 1-8.

6.13 APPLICATION OF KOLB'S THEORY OF EXPERIENTIAL LEARNING

- **Concrete experience**

In a concrete experience, participants learn activities by observing accurately or doing activities. Participants will discover new and relevant information through lectures and observing information from poster presentations during teaching and learning. They will also acquire new ideas from group discussions, feedback, and clarifying questions. Participants will understand the importance of diet during pregnancy, such as eggs as a source of protein for growth and development, the introduction of complementary feeding at six months when the gastrointestinal tract is fully developed, encouraging exclusive breastfeeding, encouraging PW to utilise healthcare facilities, and discouraging the use of herbs. The participants will acquire experience on participating in maternal and child healthcare.

- **Reflective observation**

At this stage, participants will adjust to new experiences by reflecting on their own experiences and trying to understand the difference between the previous and the new experience. Elderly women will use their experience in the care of maternal and child health through group discussion and debating. Feedback will assist them in understanding the importance of skilled birth attendants and healthcare facilities. The participant understands that PW should be referred early for medical intervention.

- **Abstract conceptualisation**

During this stage of the learning cycle, participants make sense of what they have experienced and try to fit in what they learned and whether it makes sense from their existing experience or what they already know. Then, the participants will use their indigenous knowledge to care for PW. After the training, they will try to fit in what they have just learned from their previous knowledge.

- **Active experimentation**

At this stage, participants try out what they have learned. The participants will understand new knowledge and skills to apply in participation to maternal health practices; group discussions and feedback will correct the myth that elderly women had towards the care of maternal and child health.

6.7 TOOL TO EVALUATE TRAINING PROGRAMME

The training will be conducted over three days. After the training, participants will be requested to complete the evaluation tool at the end of day three to continuously assess the programme's effectiveness. The evaluation tool consisted of closed and open-ended questions to allow the participants to express their views fully. The researcher should appoint at least two health care professionals who are multilingual people to ask elderly women questions from the evaluation tool. They will also assist in completing the evaluation tool on behalf of the elderly women, as most of them cannot read and write. An assessment or evaluation tool is a technique or method of evaluating information to determine how much a person knows and whether this knowledge aligns with the bigger picture of a theory or framework. Table 6.2 below provides the training evaluation tool.

Table 6.2: Training evaluation tool

End of Workshop Evaluation Tool for Learners

Instructions to the learner:

- **This evaluation tool should be completed in full.**
1. What did you learn in this training workshop?
 2. What did you not understand in this training workshop?
 2. Which activities were most useful?
 3. Is there anything important that is not included in this training programme?

Select “yes” or “no” in the appropriate box

Yes No

- Where necessary, explain responses in the space below each question.
- Put a cross in the appropriate block.

4. Did you understand all the activities performed in this training?

5. Is there any activity that was not useful in this training?

6. Are you satisfied with the training?

6.8 SUMMARY

In this chapter, the training programme for elderly women to improve the reduction of maternal mortality rates was developed. A tool will be used at the end of the training to evaluate the training programme’s effectiveness. The next chapter will discuss the guidelines to operationalise the development of the training programme.

CHAPTER 7

GUIDELINES TO OPERATIONALISE THE DEVELOPMENT OF THE TRAINING PROGRAMME

7.1 INTRODUCTION

The previous chapter developed a training programme for elderly women to improve the reduction of maternal mortality rates. This chapter discusses the guidelines to operationalise the implementation of the developed training programme.

7.2 GUIDELINES FOR THE TRAINING PROGRAMME

Guidelines are generally described as systematically developed statements to assist practitioners and patients in deciding on appropriate healthcare for specific circumstances (Orem, Wavamunno, Bakeera & Criel, 2012). Therefore, guidelines are tools for directing and informing the implementation of the programme. Guidelines to direct programme implementation were developed based on six elements of practice theory by Dickoff et al., (1968). These guidelines are as follows:

- Guidelines for the context
- Guidelines for the agents
- Guidelines for the recipients
- Guidelines for the dynamics
- Guidelines for the procedure
- Guidelines for the outcome

7.2.1 Guidelines for the context

Clinics, Musanda and homes were identified as context for this study, therefore:

- Clinic staff should provide health education for elderly women to encourage pregnant women to seek early medical intervention in the morning before collecting chronic treatment and normal routine work.
- Clinic staff should continuously conduct workshops and in-service training for elderly women regarding the training programme.
- Clinic staff should continuously work together with elderly women adhering to protocols and guidelines for pregnancy and childbirth.

7.2.2 Guidelines for the agents

The agents are the healthcare professionals who should:

- Be willing to train elderly women to improve the reduction of maternal mortality rates.
- Acknowledge care offered by elderly women in maternal and child health to encourage cooperation and flexibility.
- Strengthen health service delivery by capacitating and empowering elderly women on the importance of utilising healthcare services.
- Listen attentively to the care offered by elderly women and give professional advice.

7.2.3 Guidelines for the recipients

Elderly women were identified as a recipient of the training programme:

- Training is necessary to capacitate elderly women on the importance of utilising healthcare services by PW and BMs in their communities.
- They should encourage pregnant women to seek early medical intervention to identify problems to prevent the reoccurrence of complications.

- They should support pregnant women regarding the care they receive from healthcare professionals and be the source of timely referrals.
- They should listen attentively to healthcare professionals concerning the decision made on the care of pregnant women

7.2.4 Guidelines for the dynamics

Healthcare professionals should offer continuous training to elderly women although they know pregnancy care, labour, puerperium and child health based on traditional and cultural backgrounds. This should be done by showing acceptance, willingness and preparedness, effective listening and mutual respect, and the Ubuntu philosophy.

7.2.5 Guidelines for the procedure

Health awareness, community outreach, conducting home visits, and collaboration of services are the procedure for the training programme:

- There is a need to provide health education to elderly women regarding the importance of seeking early medical intervention to identify challenges and prevent the development of complications. Elderly women prefer to practice indigenous knowledge based on traditional and cultural maternal and child health norms. This contributes to delays in seeking early medical intervention; therefore, it is paramount to offer health awareness through training elderly women to participate in maternal health practices to reduce maternal mortality.
- As the study revealed, home visits by healthcare professionals should be done to support elderly women as caregivers of pregnant women at home. In addition, home visits would encourage elderly women to refer and accompany pregnant women to the hospital when still early; this would assist in identifying problems early, treatment, and preventing complications and death.
- Collaboration of services between healthcare workers and elderly women would assist in sharing views regarding the care of pregnant women, influence timely

referral and consistency in seeking medical intervention and sustainability in the reduction of maternal mortality rates.

7.2.6 Guidelines regarding the outcome of the training programme

- The interaction between the agents and recipients in a conducive context while correctly applying dynamics and procedure could result in a positive outcome, that is, a reduction of maternal mortality rates.

7.3 CHAPTER SUMMARY

This chapter outlined the operationalisation of the training programme following the six elements of practice theory as outlined by Dickoff et al., (1968) and Kolb's experiential learning cycle. The next chapter will focus on the validation of the developed training programme.

CHAPTER 8

VALIDATION OF THE DEVELOPED TRAINING PROGRAMME

8.1 INTRODUCTION

The previous chapter presented the development of the training programme (Chapter 6) and guidelines to operationalise the development of the training programme (Chapter 7), where the study's findings were used to develop the programme that will be utilised by elderly women in participation in maternal health practices. Recommendations were made based on the findings of the study guided by Dickoff et al., (1968) and the developed training programme by Kolb's experiential learning cycle. This chapter authenticates the feasibility of the training programme and whether it is applicable to correcting the gaps identified from the study's findings. The objective of this chapter is to validate a training programme for elderly women participating in maternal health practices to improve the reduction of maternal mortality in Limpopo Province, South Africa.

8.2 TRAINING PROGRAMME VALIDATION

Training programme validation was conducted according to Chinn and Kramer (2019) criteria, where critical questions were asked in order to provide information on how the training programme might serve a purpose, how it was to be used, and how it might be further improved. Training programme validation includes clarity, simplicity, generality, accessibility, and importance of the programme. The profile of the evaluators, their ranks, highest qualifications, current academic programmes, validation of the model, and its applicability in maternal health practices was the primary focus during programme validation. Validation was done in two sessions: session one was conducted with research experts at the university and MW from the clinic, and session two was conducted with the elderly women at the local chief's kraal. The developed

training programme was validated in two different sessions, as indicated in Table 8.1 below.

Table 8.1: Validation sessions for the developed training programme

Number of sessions	Date conducted	Number of evaluators
Session 1	23 November 2022	8
Session 2	21 January 2023	10

8.3 VALIDATION OF DEVELOPED TRAINING PROGRAMME SESSION 1

Session 1 of the training programme validation was conducted on 23 November 2023. The training programme was validated for clarity, simplicity, generality, accessibility, and importance. The evaluators' profile, academic qualifications, and current academic programmes are discussed.

8.3.1 Profile of the evaluators

The developed training programme was validated by healthcare professionals guided by Chinn and Kramer (2019), who posit that the programme must be validated for its clarity, simplicity, generality, accessibility, and importance. Eight healthcare professionals comprising registered nurses (MW and a midwifery specialist) validated the training programme. Ten elderly women were maternal and child health caregivers at the community level. These individuals were purposively sampled from the research cohort group of the University of Venda in the Department of Advanced Nursing Sciences. The evaluators are experts in research and midwifery, as Chinn and Kramer (2019) suggested, and have postgraduate degrees, such as Honours, Masters, and PhDs. The elderly women as maternal and child health caregivers are evaluators who were purposively sampled at the local authority council.

Other evaluators were elderly women who were maternal and child health caregivers without formal training. These elderly women are experts in maternal and child health,

using their indigenous knowledge acquired from personal experience or through an apprenticeship of others (WHO, 2016). A request was made from the evaluators to evaluate the training programme, and they voluntarily agreed. Consent was obtained verbally. The training programme was then presented for evaluators to develop constructive comments.

8.3.1.1 Ranks of the evaluators

Evaluators comprise registered MW; some work at the district level, community health centres and clinics, and some are academics at an institution of higher learning. Evaluators' expertise in midwifery and research makes it possible for them to understand the training programme and validate the programme for its clarity, simplicity, generality, and applicability at the clinics and community level. Evaluators comprise elderly women as maternal and child health caregivers with no formal training using indigenous knowledge. Their knowledge of maternal and child health based on traditional and cultural practices is important to evaluate the programme.

Registered MW at the community health centre and clinics work directly with patients and render quality patient care. Therefore, their comments and inputs in the training programme were important to determine whether the terms used were clear, general, applicable, and feasible at the operational level. In addition, a registered MW working at an academic institution of higher learning as a lecturer (including the promoters) who were at the forefront of students entering the field of the nursing profession. Their expertise in nursing research and midwifery curriculum assisted in evaluating the training programme, and their comments and inputs were acknowledged. Finally, elderly women who are maternal and child health caregivers at the community level of care. Their indigenous knowledge in maternal care included evaluating the training programme. Their comments, inputs, and feedback were vital as they assisted in determining the training programme's clarity, simplicity, applicability, and feasibility at the community level. The evaluators' positions are shown in Figure 6.1 below.

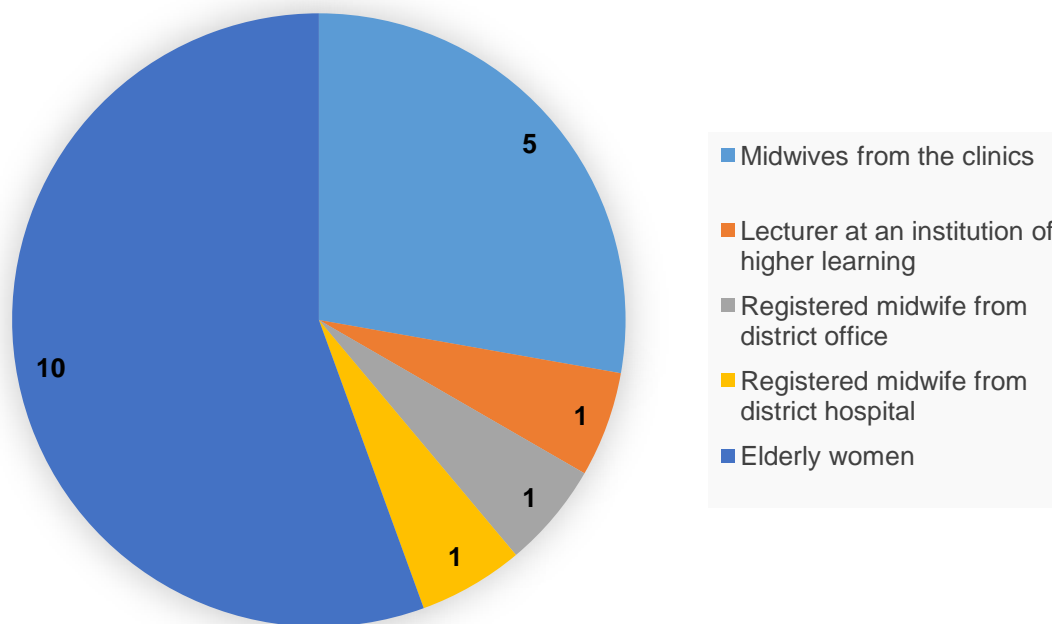


Figure 8.1: Positions of the evaluators

8.3.1.2 Highest obtained qualifications of training programme evaluators

Evaluators are experts in research. One (1,4%) had an Honours degree, seven had a Master's degree, seven had PhDs, and ten did not have any formal qualifications.

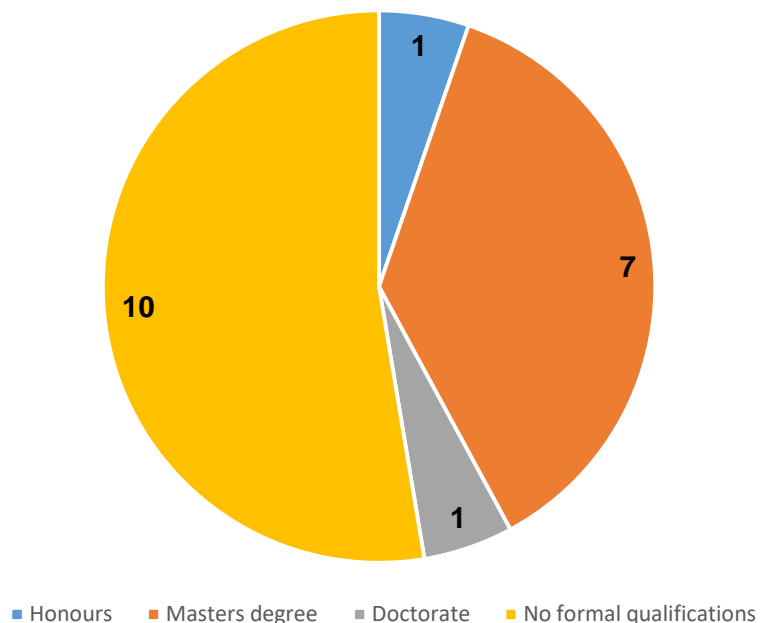


Figure 8.2: Qualifications of the evaluators

8.4 VALIDATION OF DEVELOPED TRAINING PROGRAMME

The process of validation verifies that the recipients are receiving the relevant information and that the program has produced the desired results. Before the training program could be adopted or implemented, it is important to have end users validate it to determine its relevance and accuracy. Two groups were used to evaluate the developed training programme, that is, the registered midwives and elderly women. These two groups that validated the developed programme were not part of data collection. The study employed a qualitative method of approach to obtain information from the participants. Non-probability purposive sampling was used to select the participants. Appointments and arrangements were made with the assistance of clinics local area manager for midwives and headman for the elderly women. The programme was presented to the group of participants for their evaluation and inputs. The question asked were guided by Chinn and Kramer (2019) criteria who posits that the programme should be validated for its clarity, simplicity, generality, accessibility, and importance.

First group that validated the developed programme was the group of registered midwives. The programme was presented to the group of registered midwives. Copies of training programme were left with the midwives to go through the programme on their own spare time. Appointments were made to meet the group again to discuss about the programme and have inputs and comments. The question asked was guided by Chinn and Kramer (2019) criteria to evaluate the developed training programme. Chinn and Kramer constructs used to evaluate the programme with midwives was discussed below:

8.4.1 Clarity

The training programme was validated for clarity after it was presented. The concept used is well-known in the nursing profession. The concept definition is derived from the DoH documents and is aligned with the nursing profession. The outcomes of the validation from the group were as follows:

- the purpose of the programme should not be the same as for the main study, therefore the word “train” was removed and replaced with “empower” for the purpose of the programme to be clear.
- all healthcare professionals should be included to be the facilitators of the programme not only midwives due to the shortage of staff for the training to run throughout.

Researcher aligned the programme according to the inputs made and presented it again. Evaluators indicated that the programme is clear and easy to be followed after it was aligned.

8.4.2 Simplicity

The programme was validated for simplicity. Concepts from the interaction between the agents and recipients are identifiable and simple to be followed. Evaluators indicated that information was simple to be followed, consistent and well understood.

8.4.3 Generality

Generality refers to the breadth of scope of concepts and purpose within the programme (Chinn & Kramer, 2019). In this study, validating the developed training programme for generality means that the programme should use general terms and applicability. The evaluators regarding the generality of the training programme indicated that the programme should be applied at the clinics and chief's kraal where there are elderly women who took care of the PW in Vhembe and Capricorn Districts in Limpopo Province.

8.4.4 Accessibility

Evaluators indicated that the following resources could have access to the developed training programme:

- Limpopo Provincial DoH at Limpopo Health Research Database
- University of Venda Library
- Presentation at organised international and national conferences
- Accessed from published articles and journals

8.4.5 Validation of the importance of developed training programme

This study is midwifery related as it is deeply rooted in tradition and culture. Healthcare professionals indicated that the training programme is practice-based, as both healthcare professionals and elderly women know about maternal and child health. Healthcare professionals are professionally trained and have a certificate to show they have acquired the requisite knowledge and skills from midwifery-related courses, whereas elderly women are not professionally trained. They have acquired knowledge from their own experience and their elders. Knowledge of the elderly women focuses more on traditions and culture; these instil fear in the life of people in that particular community that if they do not follow their advice, something unusual will happen to

them. Therefore, the programme is important for training elderly women who care for PW at home in order to prevent delays in seeking medical intervention to reduce maternal mortality.

In nursing education, training programmes could be incorporated into the midwifery curriculum for student MW entering the profession; however, it is important to encourage elderly women to refer PW to healthcare facilities as early as possible.

The DoH should liaise with the Department of Transport to improve infrastructure that contributes to barriers for PW in utilising healthcare services. Moreover, the training programme could further bring the need for more researchers to conduct a longitudinal study to assess the effectiveness of the training programme, as it was aligned with the purpose and objectives of the research study.

8.5 GENERAL COMMENTS BY MIDWIVES

MW strongly agrees that there is a need for elderly women to be trained and empowered in the care of maternal and child health. Elderly women offer care to PW using their indigenous knowledge based on traditional and cultural practices. These practices contribute to the delay in seeking medical assistance. MW indicated a need for additional staff to provide continuous health education to the community to curb the barriers to utilising healthcare services. They further indicated that there is a need for the DoH to liaise with the Department of Agriculture for PW who are working on farms to be released to attend the antenatal clinic without losing their jobs

In conclusion, the manager promised delegates/staff members that they would start with health awareness in the morning before commencing normal routine work as practised before. The manager further alluded that CHWs would be delegated to conduct home visits to offer continuous health awareness to strengthen services offered at healthcare services to improve the reduction of maternal mortality rates.

8.6 EVALUATION OF THE TRAINING PROGRAMME SESSION 2

Session 2 of the training programme evaluation was conducted on 21 January 2023 with elderly women at the Musanda. An arrangement for this session was made with the chief.

Convenient sampling was used with elderly women available on the respective date.

8.6.1 Profile of the elderly women

The evaluators comprised 10 elderly women between the ages of 55 to 80, who participated in maternal and child health without a formal qualification. Figure 8.3 below provides a summary of their profile.

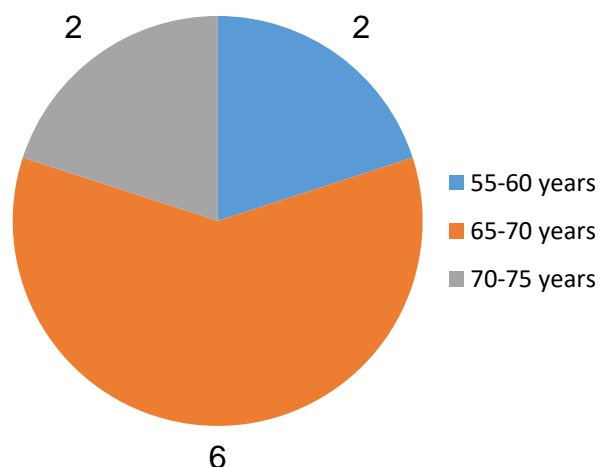


Figure 8.3: Profile of elderly women

Second group that validated the developed programme was the group of elderly women. The programme was presented to the group so that they may have insight about the developed training programme. After the programme was presented to the group of evaluators, appointments were made to meet the group again to discuss about the programme and have inputs and comments. The question asked was guided by Chinn and Kramer (2019) criteria to evaluate the developed training programme. On the appointment day, the programme was presented again to the group of evaluators to

remind them about how the programme entails. Chinn and Kramer constructs used to evaluate the programme with elderly women was discussed below:

8.6.2 Training programme evaluation for clarity and its simplicity by elderly women

The training programme was first presented to the group of elderly women for them to have inputs regarding the programme. Chinn and Kramer (2019) criteria clarity and simplicity; they all indicated that it was clear, easy to understand, and simple to follow. They expressed their gratitude for being included in maternal and child health, and further appreciated the knowledge shared with them in order to improve the reduction of maternal mortality.

8.6.3 General comments by elderly women

Elderly women agreed to be taught about maternal and child health; as caregivers of the PW at home, they were not formally trained but participated in caring for PW, BFMs, and newborns. They acknowledged that the healthcare system considers them to care for PW, BFMs and child health. They appreciated being part of taking care of maternal and child health formally. However, they raised a concern about the issue of the use of indigenous knowledge based on traditional and cultural practices that should also be considered and included in the healthcare system as they believe that it works as it had worked for them. They further mentioned mutual respect as healthcare professionals previously undermined their knowledge. Elderly women indicated that they should be accepted for their use of indigenous knowledge, and healthcare professionals should exercise the Ubuntu philosophy, which states that a person is a person through others. As such, they must assist each other with dignity to care for PW for positive pregnancy outcomes.

8.7 SUMMARY

This chapter focuses on validating the developed training programme, which was done according to Chinn and Kramer's (2019) elements: clarity, simplicity, generality, accessibility, and importance. Evaluations were conducted in two sessions with MW and elderly women. The next chapter presents the conclusion, limitations and recommendations of the study.

CHAPTER 9

CONCLUSIONS, CONTRIBUTIONS, LIMITATIONS AND RECOMMENDATIONS

9.1 INTRODUCTION

The previous chapter described the development of the training programme for elderly women and validated the programme for its suitability and acceptance by experts and participants. This chapter presents the conclusions, contributions and limitations of the study, as well as recommendations for further research.

9.2 OVERVIEW OF THE STUDY

Maternal mortality remains high due to late booking for medical assistance by PW and BFM in rural communities across South Africa. Elderly women play an essential role in traditional health programmes and assist PW and BFMs in maternal health in which they do not have formal training. Despite such assistance, the Limpopo Province maternal mortality rate remains higher than the national rate. To curb the maternal mortality resulting from delays in seeking medical intervention by PW and BFMs, providing professional training in maternal health to elderly women remains important. However, the modalities of training elderly women remain elusive due to the lack of training programme.

The main purpose of this study was to develop a training programme for elderly women in rural communities to improve the reduction of maternal mortality rate in Limpopo Province, South Africa. This study consisted of three major phases: Phase 1: Situational analysis; Phase 2: Development of Training programme for elderly women; and Phase 3: Validation of the developed training programme. This study mainly utilised a qualitative design, approaches and methods.

Objectives for Phase 1: Situational analysis:

- To explore and describe the roles of elderly women in participating in maternal health practices in Limpopo Province, South Africa.
- To explore and describe the information elderly women give to pregnant women and breastfeeding mothers regarding using healthcare services.

- To explore and describe MW views regarding the barriers to delaying pregnant women and breastfeeding mothers from seeking medical attention.

Objectives for Phase 2: The development of the training programme :

- To describe and develop a training programme for elderly women participating in maternal health practices to improve the reduction of maternal mortality in Limpopo Province, South Africa.

Objectives for Phase 3: Validation of the developed training programme:

- To validate the developed training programme for elderly women participating in maternal health practices to improve the reduction of maternal mortality in Limpopo Province, South Africa.

Figure 9.1 below shows the organisation of the study and the summary of the nine chapters.

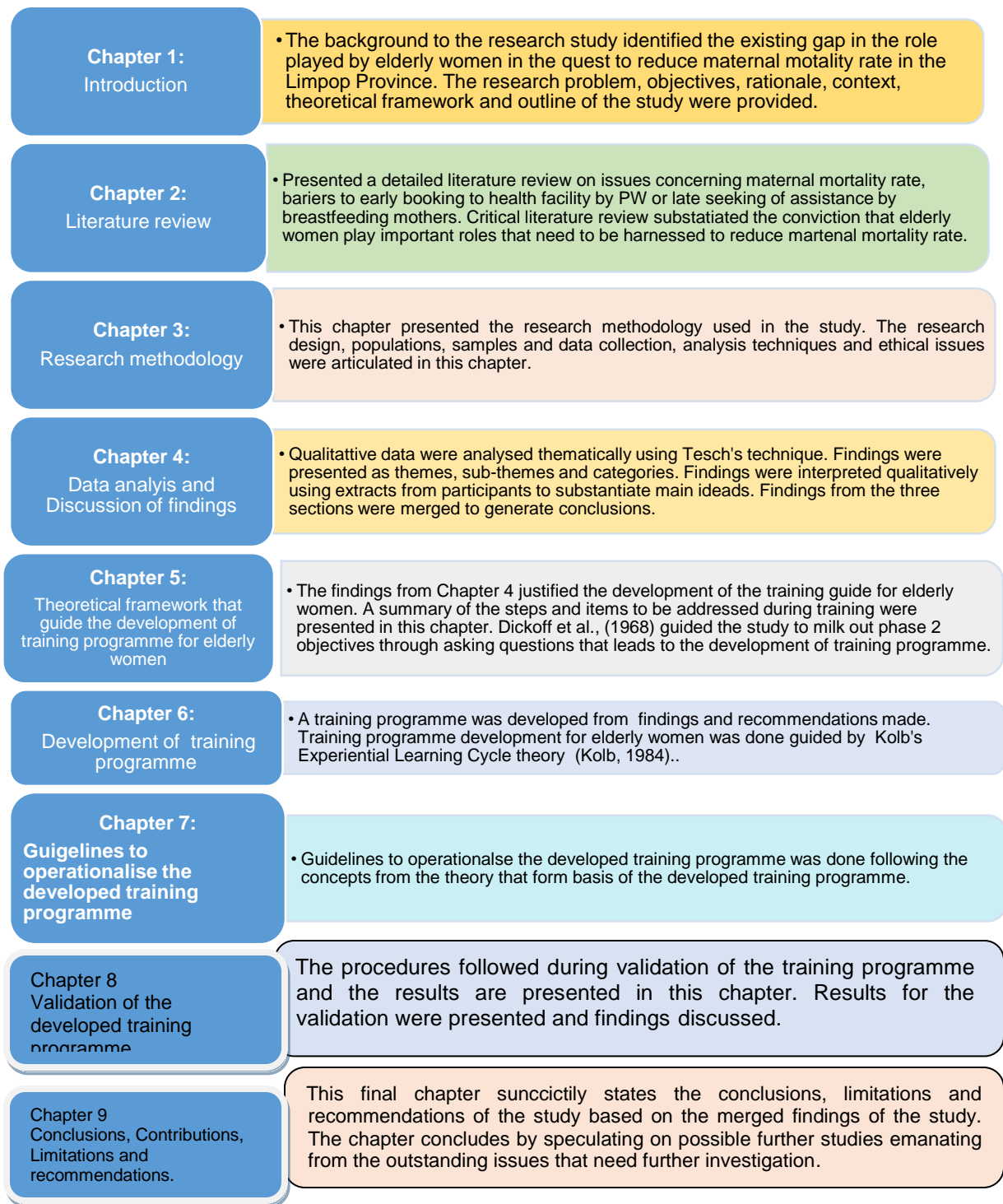


Figure 9.1: Overview of study

9.3 CONCLUSIONS

The study made several findings on which conclusions were based. The conclusions are presented for each sub-research question and the main research question.

9.3.1 What are the roles of elderly women in participation in maternal health practices?

The study found that elderly women played three roles, that is, advice to PW and BFMs, practices based on beliefs of elderly women and support in maternal health in rural communities. The elderly women acted as advisors to PW and BFMs who provided services and support during pregnancy, delivery, and breastfeeding. All roles were based on traditional, cultural and/or religious beliefs, which influenced the PW and BMs to delay seeking medical health from health facilities. The study concluded that the three roles played by the elderly were essential in maternal health in general but needed to be improved to synchronise with those provided at the medical facilities. Due to their influence over PW and BFMs and the trust put in them by communities, the roles of elderly women were detrimental to the efforts put into reducing the maternal mortality rate in the district. Elderly women lacked adequate knowledge and formal training to provide services consistent with modern medical health needs for PW and BFMs.

9.3.2 What kind of information do elderly women give to pregnant women and breastfeeding mothers?

Information about maternal health is essential for the well-being of PW, BFMs, and newly born babies in rural communities. The study found that elderly women communicated many ideas to PW and BFMs; however, scrutiny of the information given focused on behavioural habits such as eating, sleeping, dressing, and being careful of witchcraft. PW were discouraged from revealing their pregnancy to the community and even early booking to the clinic. MW speculated that the type of information given

caused emotional tension among PW and BFMs as it contradicted that given in the health facility. The study concluded that the lack of adequate medical health information among elderly women caused them to misinform PW and BFMs, delaying seeking medical assistance on time. In addition, the information caused young mothers and PW to vest much of their expectations in traditional, cultural and religious beliefs until it was too late to get assistance.

9.3.3 What are midwives' views regarding the barriers that delay pregnant women and breastfeeding mothers from seeking early medical attention?

The study found that MW were familiar with major barriers to early booking for medical assistance among PW and BFMs in rural communities. Lack of knowledge among PW and BFMs, emotional challenges, economic problems, and influence from elderly women were barriers cited as barriers to seeking medical assistance. Most importantly, the influence of elderly women through advice, practices, and support vested in cultural, traditional, and religious beliefs dominated the discussions. The study concluded that the influence of elderly women was the major contributory barrier that delayed PW and BFMs in seeking early medication assistance from local health facilities. The study further concluded that elderly women lacked the knowledge and skills needed to provide advice, services and support outside of cultural, traditional and religious beliefs; therefore, training in professional healthcare was required.

9.3.4 What kind of training programme do elderly women need to improve the reduction of maternal mortality rates in Limpopo Province, South Africa?

From the findings in all three sections, it was evident that elderly women had a greater influence on childbearing women and played different essential roles in maternal health at the community level. These roles emphasised cultural, traditional and religious beliefs. These roles and practices discouraged PW and BFMs from seeking early medical assistance in time and resulted in serious complications and fatalities that increased maternal mortality. Furthermore, the findings pointed to the fact that the roles

were arbitrary and depended on the ethnic group and could have been inconsistent with medical practices. To address these shortcomings, the study concluded that elderly women needed a training programme that will:

- Integrate elderly women into the community healthcare system managed by local health workers
- Develop awareness for elderly women to encourage pregnant women and breastfeeding mothers to seek early medical intervention.

9.4 CONTRIBUTIONS TO THE BODY OF KNOWLEDGE

The scope of this study was limited to developing a training programme to promote the participation of elderly women in providing formal maternal healthcare in rural communities to reduce maternal mortality by encouraging PW and BFMs to seek health assistance as early as possible. The major contribution of this study was the training programme that can be used to train elderly women in maternal healthcare. Existing literature emphasises that a programme, set of guidelines, and framework form functional knowledge that informs existing practices about the need to improve maternal mortality in the selected community or field of study, health organisation, and community of practice. Therefore, the training programme produced in this study is a scientific contribution to functional knowledge in the health sciences research and is essential for guiding local health workers and elderly women to participate constructively in reducing the maternal mortality rate by encouraging early booking for medical assistance by PW in rural communities. By producing the training programme, the study contributed to the knowledge and skills essential for interventions in the real world of maternal healthcare. Furthermore, the study provided new literature on integrating professional maternal healthcare knowledge and cultural, traditional, or religious practice. This study has illustrated the importance of recognising the effort of elderly women and harnessing this effort for the betterment of PW and BFMs in the province.

9.5 LIMITATIONS

Although the findings of the study are crucial in enhancing the chances of reducing maternal mortality rate in Vhembe and Capricorn Districts through training of elderly women, this cannot be generalised to other districts or provinces where there are other ethnic groups with different cultural and traditional beliefs. This study was restricted to the sampled clinics of Vhembe and Capricorn Districts, excluding the hospitals of the sampled districts. The study was contextual; only elderly women of 50 years and above, PW, and BFMs who came for six weeks of postnatal check-ups were interviewed. Most of the views and opinions used in the study were limited to the Vhavenda and Bapedi communities. The study was conducted during the COVID-19 pandemic, which impacted the number of participants involved and the contact time with them. Furthermore, focus groups could have affected how the participants responded to some of the questions.

9.6 RECOMMENDATIONS

The study made several recommendations.

9.6.1 Policymakers

The study recommends that policymakers should consider the role of elderly women in maternal mortality when designing policies to curb the ever-increasing maternal mortality rate. Integrating the training of elderly women into maternal health policies can aid the training of elderly women using appropriate training programmes commensurate with the needs of a community. Furthermore, ensuring policy integrates the training of elderly women can assist elderly women in providing maternal assistance more professionally. This means that the developed training programme could be adopted and implemented in other settings both national and international.

9.6.2 Health workers/nursing practice

The study recommended that healthcare workers adopt, adapt or customise existing training programmes when training elderly women who can assist PW and BFMs in their local communities to consider seeking healthcare within the prescribed time. In addition, health care workers should make elderly women aware of their important role in reducing maternal mortality in their community by actively encouraging PW and BFMs to seek early medical intervention for professional assistance. It was also recommended that health workers could refer to the training programme when providing training to elderly women and monitor them when providing maternal health assistance to PW and BFMs.

9.6.3 Training institutions

The study recommended that the training institutions could incorporate the developed training programme into midwifery curriculum for the newly trained midwives to be aware of the importance of the programme and continue to train elderly women.

9.6.4 Further research

This study suggested further research to conduct a longitudinal study to evaluate the impact of the training programme on the ability of trained elderly women to influence PW and BFMs to make correct decisions in seeking early maternal healthcare assistance.

9.6.5 Plan for dissemination of research findings

The researcher intends to disseminate the study findings by disseminating a soft copy of the thesis at the University of Venda Library for future reference. Secondly, the research findings will be published in selected peer-reviewed journals and conference proceedings, while a copy will be sent to the DoH.

9.7 SUMMARY

This chapter presented the conclusions, contributions, limitations, and recommendations of the study. It described the overall achieved purpose and objectives of the study. The conclusion of the study was made following the findings from Phase 1 of the study, which led to the development of a training programme for elderly women to improve the reduction of maternal mortality.

LIST OF REFERENCES

Abbaspoor, Z., Moghaddam-Banaem, L., Ahmadi, F., & Kazemnejad, A. 2014. Women's fear of childbirth and its impact on the selection of birth method: A qualitative study. *Payesh*, 13.

Absolon, K. 2019. Indigenous wholistic theory: A knowledge set for practice. *First Peoples Child & Family Review*, 14(1), 22–42.

Afulani, P. 2020. *What drives abuse of women in childbirth?* Available at: <https://theconversation.com/what-drives-abuse-of-women-in-childbirth-we-asked-those-providing-the-care-134465>.

Akeju, D. O., Oladapo, O. T., Vildler, M; Akinmade, A A., Sawchuk, D., & Qureshi, R., 2016. CLIP Nigeria feasibility working group: Determinants of health care seeking behaviour during pregnancy in Ogun State, Nigeria. *Reproductive Health*, 13(32), 67–74. Doi:10.1186/s12978-016-0139-7

Amoo, T.B. and Ajayi, O.S., 2019. Maternal mortality and factors affecting it, among pregnant women in Abeokuta South, Nigeria. *Clin J Obstetr Gynecol*, 2(2), pp.071-078.

Aryastami, N. K., & Mubasyiroh, R. 2021. Traditional practices influencing the use of maternal health care services in Indonesia. *PLoS One*. Doi: 10.1371/journal.pone.0257032.

Aryeetey, R. N. O., Aikins, M., Dako-Gyeke, P., & Adondo, P. B. 2015. Pathways utilized for antenatal health seeking among women in the Ga Eastern District, *Ghana Med J*, 49(1), 44–49.

Arzoaquoi, S. K., Essuman, E. E., Gbagbo, F. Y., Tenkorang, E. Y., Soyiri, I., & Laar, A. K. 2015. Motivations for food prohibitions during pregnancy and their enforcement mechanisms in a rural Ghanaian District. *Journal of Ethnobiology and Ethnomedicine*. <https://doi.org/10.1186/513002-015-0044-0>

Aziato, L., & Omenyo, C. N. 2018. Initiation of traditional birth attendants and their traditional and spiritual practice during pregnancy and childbirth in Ghana. *BMC in Pregnancy and Childbirth*, 18, 64. <https://doi.org/10.1186/s12884-018-1691-7>

Barnett, D. 2015. Examining health workers perceptions of organisational expectations following disaster: Practise-based perspectives.

Beinempaka, F., Tibanyendera, B., Atwine, F., Kyomuhangi, T., & Macdonald, N. E. 2014. The practice of traditional rituals and customs in newborns by mothers in selected villages in southwest Uganda. *Paediatric Child Health*, 19(2), 72. Doi: 10.1093/pch/19.2.72.PMID:24596478

Beinempaka, F., Tibanyendera, B., Atwine, F., Kyomuhangi, T., Kabakyenga, J., & Macdonald, N. E. 2015. Traditional rituals and customs for pregnant women in selected villages in Southwest Uganda. *Journal of Obstetrics Gynaecology Canada*, 37(10), 899–900.

Buser, J. M. 2019. *Cultural practices, knowledge, and beliefs of newborn care and health-seeking in rural Zambia*. Doctor of Philosophy, University of Michigan. Unpublished thesis. Zambia.

Cheboi, S. K., Kimeu, A. N., & Rucha, K. K. 2019. Perceived indigenous perspectives of maternal health care services among women of Marakwet, Kenya. *Journal of Advances in Medicine and Medical Research*, 31(7), 1–14.

Chinn and Kramer. 2019. Knowledge development in nursing: Theory and process. Tenth Edition. St. Louis, MO: Elsevier Mosby.

Choguya, N. Z. 2014. Traditional birth attendants and policy ambivalence in Zimbabwe. *Journal of Anthropology*. <https://dx.doi.org/10.1155/2014.750240>

Couros, G. 2018. *Characteristics of a change agent: The principal of change [Blog post]*. Available at: <https://georgecouros.ca/blog/archieves/3615> (Accessed 15 August 2022).

Dickoff, J., James, P., & Wiedenbac, E. 1968. *Theory in a practice discipline: Nursing Research*. Lippincott-Raven.

Ebonwu. J., Mumbauer, A., Uys, M., Wainberg, M. L., & Medina-Marino, A. 2018. Determinants of late antenatal care presentation in rural and peri-urban communities in South Africa: A cross-sectional study. *PLoS One*. doi: 10.1371/journal.pone.0191903.

Furber, C. M., Garrod, D., Maloney, E., Lovell, K., & McGowen, L. 2009 A qualitative study of mild to moderate psychological distress during pregnancy. *International Journal of Nursing Studies*, 46, 669–677.

Gako-Gyeke, P., Aikins, M., Aryeetey, R., Mccough, L., & Adongo, P. B. 2013. The influence of socio-cultural interpretations of pregnancy threats on health-seeking behavior among pregnant women in urban Accra, Ghana. *BMC Pregnancy and Childbirth*, 13(211), 1–12.

Gluckman, P., Hanson, M., Seng, C. Y., & Barddsley, A. 2015. *Cultural and traditional food practices in pregnancy and breastfeeding, nutrition and lifestyle for pregnancy and breastfeeding*. Oxford Publishers.

Haydam, N.E. and Steenkamp, P., 2021. The Social Sciences Research Methodology Framework and its Application during COVID-19. *Reshaping Sustainable Development Goals Implementation in the World; Twum-Darko, M., Ed*, pp.59-72.

Ilker, E., Sulaiman, A.M & Rukayya, A.A. 2016. Comparison of concinience sampling and purposive Sampling. *American Journal of Theoretical and Applied Statistics*. 5 (1): 1-4.

Issaka, A. I., Agho, K. E., Burns, P., Page, A., & Dibley, M. J. 2014. Determinants of inadequate complementary feeding practices among children aged 6-23 months in Ghana. *Public Health Nutrition*, 18(4), 669–678.

Jacobs, C., Michelo, C., & Moshabela, M. 2018. Implementation of a community-based intervention in the most rural and remote districts of Zambia: A process evaluation of

safe motherhood action groups. *Implementation Sci*, 13, 74. .
<https://doi.org/10.1186/s13012-018-0766-1>

Kolb, A., & Kolb, D. 2018. Eight important things to know about the experiential learning cycle. *Australian Educational Leader*, 40(3), 8–14.

Kortman, D. P. V. 2020. *Indigenous stories of pregnant women in Botshabelo on ensuring positive pregnancy outcomes. Magister Scientiae in Nursing*. Unpublished dissertation. University of the Free state, South Africa.

Lambermon, F., Vandenbussche, F., Dedding, C. and van Duijnhoven, N., 2020. Maternal self-care in the early postpartum period: An integrative review. *Midwifery*, 90, p.102799.

Latifnejad, R. R., Zakerihamidi, M., & Merghati, K. E. 2015. Socio-cultural beliefs, values and traditions regarding women's preferred mode of birth in the north of Iran. *International Journal Community Based Nursing Midwifery*, 3(3).

Li, Z., Tang, J., & Mei, T. 2018. Deep collaborative embedding for social image understanding. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 41(9). Doi: 10.1109/TPAMI.20182852750.

Liyambo, N. 2017. *Barriers to utilisation of antenatal care services among pregnant women in Omaheke Region-Namibia*. Master of Public Health: Dissertation. University of South Africa.

Macleod, S. 2013. Kolb's learning style. Retrieved November 15, 2016.

Magawane, M. A. 2014. *Indigenous practices of pregnant women at the Dilokong Hospital of the Greater Tubatse Municipality in the Limpopo Province*. Unpublished dissertation, Limpopo, South Africa.

Marabele, P. M., Maputle, M. S., Ramathuba, D. U., & Netshikweta, L. 2020. Cultural factors contributing to maternal mortality rate in rural villages of Limpopo Province, South Africa. *International Journal of Women's Health*, 12, 691–699.

Masilo, B. 2022. *Management of indigenous knowledge for maternity and childcare in the communities of Matatiele, Eastern Cape*. Unpublished thesis. University of South Africa, Pretoria.

Maswime, S., & Chauke, L. 2022. *Most maternal deaths are preventable: How to improve outcomes in South Africa*. Available at: <https://theconversation.com/most-maternal-deaths-are-preventable-how-to-improve-outcomes-in-south-africa-181282>.

Moodle, J., & Pattinson, R. 2018. Improvements in maternal mortality in South Africa. *S Afr Med J*, 108(3 Suppl 1), S4–S8. DOI:10.7196/SAMJ.2018.v108i3.12770.

Morris, B. 2010. Indigenous knowledge. *The Society of Malawi Journal*, 63(1).

Mphake, E. S. 2017. *Factors influencing utilisation of antenatal care among women of childbearing age in Zimbabwe*. Master of Science, North-West University. Unpublished dissertation.

M'soka, N.C., Mabuza, L.H., & Pretorius, D. 2015. Cultural and health beliefs of pregnant women in Zambia regarding pregnancy and childbirth. *Curationis*, 38(1). <http://dx.doi.org/10.4102/>

Namatovu, H. K. 2018. *Enhancing antenatal care decisions among expectant mothers in Uganda*. University of Groningen, SOM Research School.

Nkwake, A. M. 2013. *Working with assumptions in international development program evaluation*. Springer Science and Business Media, NY. Doi: 10.1007/978-1-4614-4797-97

Nyakang'o, S. B., & Booth, A. 2018. Institute of Health & Society, United Kingdom.

Ohaja, M., & Anyim, C. 2021. Rituals and embodied cultural practices at the beginning of life: African perspectives. *Religions*, 12(11), 1024.

Okereke, E., Aradeon, S., Akerele, A., Tanko, M., Yisa, I. & Obonyo, B. 2013. Knowledge of safe motherhood among women in rural communities in northern

Nigeria: Implications for maternal mortality reduction. *Reprod Health*, 10, 57.
<https://doi.org/10.1186/1742-4755-10-57>

Polit, D.F. & Beck, C.T. (2014). *Essentials of Nursing Research Methods, Appraisal and Utilization*. 8th edition. Philadelphia. New York: Lippincott.

Ramulondi, M., de Wet, H., & Ntuli, N. R. 2021. Traditional food taboos and practices during pregnancy, postpartum recovery, and infant care of Zulu women in northern KwaZulu-Natal. *Journal of Ethnobiology and Ethnomedicine*.
<https://doi.org/10.1186/s13002-021-00451-2>

Riang'a, R. M., Nangulu, A. K., & Broerse, J. E. W. 2018. Perceived causes of adverse pregnancy outcomes and remedies adopted by Kalenjin women in Rural Kenya. *BMC Pregnancy and Childbirth*, 18(408), 1–9.

Sarker, B. K., Rahman, M., Rahman, T., Hossain, J., Reichenbach, L. & Mitra, D. K. 2016. Reason for preference of home delivery with traditional birth attendance in rural Bangladesh: A qualitative exploration. *PLoS One*.

Seopa, A. N. 2021. *Indigenous practices of women during pregnancy, labour and puerperium amongst cultural grouping at selected hospitals in Limpopo Province, South Africa*. Unpublished thesis. South Africa.

Serizawa, A., Ito, K., Algadda, A. H., & Eltaybe, R. A. 2014. Cultural perception and health behaviours related to safe motherhood among village women in eastern Sudan ethnographic study. *International Journal Nursing Study*, 51(4), 572–581.

Shewamene, Z., Dune, T., & Smith, C. A. 2017. The use of traditional medicine in maternity care among African women in Africa and the diaspora: A systematic review. *BMC Complement Altern Med*, 17, 382. <https://doi.org/10.1186/s12906-017-1886-x>

Stahl, N.A. and King, J.R., 2020. Expanding approaches for research: Understanding and using trustworthiness in qualitative research. *Journal of Developmental Education*, 44(1), pp.26-28.

Swanson, R. A. 2013. *Theory building in applied disciplines*. San Francisco: Berrett - Koehler Publishers.

Taylor, D. C., & Hamdy, H. (2013). Adult learning theories: Implications for learning and teaching in medical education. AMEE Guide No. 83. *Journal Medical Teacher*, 256(35), 11.

Thipanyane, M. P., Nomatshila, S. C., Musarurwa, H. T., & Oladimeji, O. 2022. The roles and challenges of traditional health practitioners in maternal health services in rural communities of Mthatha, South Africa. *Int. J. Environ. Res. Public Health*, 19(20), 13597; <https://doi.org/10.3390/ijerph192013597>

Tsegaye, D., Tamiru, D., & Belachew, T. 2021. Food-related taboos and misconceptions during pregnancy among rural communities of Illu Aba Bor zone, Southwest Ethiopia. A community-based qualitative cross-sectional study. *BMC Pregnancy and Childbirth*. <https://doi.org/10.1186/s12884-021-03778-6>

Unsworth, J. 2017. Practice development: A concept analysis. *Journal of Advanced Nursing*, 8(6), 80–84.

Wager, C., Kawulich, B., & Garner, M. 2014. *Doing Social Research. A global context*. Mc Graw-Hill Higher Education, Brkshire.

World Bank. 2019. *World Development Indicators*. The World Bank Group.

World Health Organisation. 2015. Baby-friendly hospital initiative. Available at: <http://www.who.int/> (Accessed 22 April 2023).

Yarney, L. 2019. Does knowledge on socio-cultural factors associated with maternal mortality affect maternal health decisions? A cross-sectional study of the Greater Accra

region of Ghana. *BMC Pregnancy and Childbirth*. <https://doi.org/10.1186/s12884-019-2197>

APPENDIX 1: ETHICAL CLEARANCE FROM THE UNIVERSITY OF VENDA

ETHICS APPROVAL CERTIFICATE

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:

Mrs LC Makhado

STUDENT NO:

15018418

PROJECT TITLE: Training programme for elderly women to improve the reduction of maternal mortality rates in Limpopo province, South Africa.

PROJECT NO: SHS/20/PDC/35/2809

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Prof ML Netshikweta	University of Venda	Promoter
Dr NS Raliphaswa	University of Venda	Co - Promoter
Dr M Maluleke	University of Venda	Co - Promoter
Mrs. LC Makhado	University of Venda	Investigator – Student

Type: **Doctoral Research**

Risk: **Minimal risk to humans, animals or environment**

Approval Period: **October 2020 – October 2023**

The Human and Clinical Trials Research Ethics Committee (HCTREC) hereby approves your project as indicated above.

General Conditions

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following.

- The project leader (principal investigator) must report in the prescribed format to the REC:
 - Annually (or as otherwise requested) on the progress of the project, and upon completion of the project
 - Within 48hrs in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.
 - Annually a number of projects may be randomly selected for an external audit.
- The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project, the project leader must apply for approval of these changes at the REC. Would there be deviated from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.
- The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date; a new application must be made to the REC and new approval received before or on the expiry date.
- In the interest of ethical responsibility, the REC retains the right to:
 - Request access to any information or data at any time during the course or after completion of the project,
 - To ask further questions; Seek additional information; Require further modification or monitor the conduct of your research or the informed consent process.
 - withdraw or postpone approval if:
 - Any unethical principles or practices of the project are revealed or suspected.
 - It becomes apparent that any relevant information was withheld from the REC or that information has been false or misrepresented.
 - The required annual report and reporting of adverse events was not done timely and accurately,
 - New institutional rules, national legislation or international conventions deem it necessary


ISSUED BY:

UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE

Date Considered: August 2020

Name of the HCTREC Chairperson of the Committee: Prof MS Maputle

Signature:




UNIVERSITY OF VENDA OFFICE OF THE DIRECTOR RESEARCH AND INNOVATION 2020 -10- 06 Private Bag X5050 Thohoyandou 0950



PRIVATE BAG X5050, THOHOYANDOU, 0950, LIMPOPO PROVINCE, SOUTH AFRICA
TELEPHONE: (015) 962 8048/3 FAX: (015) 962 9060
"A quality driven financially sustainable, rural-based Comprehensive University"

APPENDIX 2: PERMISSION FROM THE DEPARTMENT OF HEALTH TO CONDUCT THE STUDY



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

Department of Health

Ref : LP_2020_11_039
Enquires : Ms PN Motimele
Tel : 015-293 6028
Email : Phoeba.Mahlokwane@dhsd.limpopo.gov.za

Langanani Makhado

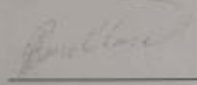
PERMISSION TO CONDUCT RESEARCH IN DEPARTMENTAL FACILITIES

Your Study Topic as indicated below;

Training programme for elderly women to improve the reduction of maternal mortality rates in Limpopo province, South Africa.

1. Permission to conduct research study as per your research proposal is hereby Granted.
2. Kindly note the following:
 - a. Present this letter of permission to the institution supervisor/s a week before the study is conducted.
 - b. In the course of your study, there should be no action that disrupts the routine services, or incur any cost on the Department.
 - c. After completion of study, it is mandatory that the findings should be submitted to the Department to serve as a resource.
 - d. The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.
 - e. The approval is only valid for a 1-year period.
 - f. If the proposal has been amended, a new approval should be sought from the Department of Health
 - g. Kindly note that, the Department can withdraw the approval at any time.

Your cooperation will be highly appreciated



A/Director Research
Dr. Ramalivhana NJ

08/02/2021
Date

Private Bag X9302 Polokwane
Fidel Castro Ruz House, 18 College Street, Polokwane 0700. Tel: 015 293 6000/12. Fax: 015 293 6211.
Website: <http://www.limpopo.gov.za>

The heartland of Southern Africa – Development is about people!

APPENDIX 3A: PERMISSION FROM THE DEPARTMENT OF HEALTH, VHEMBE DISTRICT

 **LIMPOPO**
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

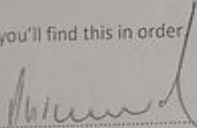
**DEPARTMENT OF HEALTH
VHEMBE DISTRICT**

Ref
Enq: MUVARI MME
Date: 15 Feb.2021

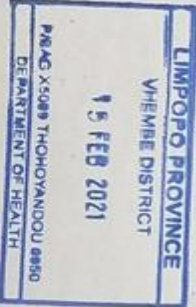
Dear Sir/Madam: Makhado L.C

REQUEST TO CONDUCT RESEARCH: Training programme for Elderly Women

1. The above matter refers.
2. Your letter received on the 15 Feb 2021 requesting for permission to conduct research is hereby acknowledged.
- 3 The Department and the District have no problem with your request.
4. You are however advised to make the necessary arrangements with the facilities you will like to consult.
5. Hope you'll find this in order.


CHIEF DIRECTOR

15/2/2021
DATE



LIMPOPO PROVINCE
VHEMBE DISTRICT
15 FEB 2021
MAG X5089 THOHOVANDOU 0950
DEPARTMENT OF HEALTH

VHEMBE DISTRICT
Private Bag X5009 THOHOVANDOU 0950
Old Parliamentary Building Tel: (015) 962 1848, (015) 962 1852, (015)962 1001/2/3/4/5/6
Fax: (015) 962 2373/ (015)9622274/ 4623.

The heartland of Southern Africa – development is about people!

APPENDIX 3B: PERMISSION FROM THE DEPARTMENT OF HEALTH, CAPRICORN DISTRICT

26.08.2021

**LIMPOPO**
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH
CAPRICORN DISTRICT

Ref : S.S/3/1/2
Enq : Mokgohloa K.A
Tel : 015 290 9096/9252
Date : 26 August 2021

FROM : DISTRICT EXECUTIVE MANAGER

TO : Mrs Makhado LC
072 276 4890

DEPARTMENT OF HEALTH
CAPRICORN DISTRICT
EXECUTIVE MANAGER

26 AUG 2021

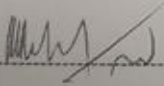
PRIVATE BAG X9530
POLOKWANE 0700
TEL: 015 290 9000 FAX: 015 291 5917

: Ratshatsha Community Health Centre and Towerfontein Clinic

**SUBJECT : TRAINING PROGRAMME FOR ELDERLY WOMEN TO
IMPROVE THE REDUCTION MORTALITY RATES IN LIMPOPO
PROVINCE, SOUTH AFRICA.**

The above matter refers:-

1. Permission to conduct the above study is hereby granted.
2. Kindly be informed that :
 - In the course of your consultation there should be no action that disrupts the services.
 - After completion of the research, it is mandatory that the findings should be submitted to the Department to serve as a resource.
 - The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.
 - Kindly note that the Department can withdraw the approval at any time.
 - Your approval is granted for one year (26 August 2021 to 25 August 2022)
3. Your cooperation will be highly appreciated.



DISTRICT EXECUTIVE MANAGER

26.08.2021
DATE

Private Bag x9530, Polokwane, 0700, 34 Hans Van Rensburg ST, Polokwane 0700

APPENDIX 4A: INFORMATION SHEET

RESEARCH ETHICS COMMITTEE

UNIVEN Informed Consent

LETTER OF INFORMATION

Title of the Research Study: Training programme for elderly women to improve the reduction of maternal mortality in Limpopo Province, South Africa

Principal Investigator/s/researcher: (*Makhado Langanani Christinah, Master in Nursing*)

Co-Investigator/s/supervisor/s: (*Prof ML Netshikweta, Dr N.S Raliphaswa and Dr M Maluleke Lecturers*)

Brief Introduction and Purpose of the Study:

The mother's survival during pregnancy and childbirth is not considered as essential as the baby's survival. Although the community and family members mostly celebrate the baby's birth, there are repercussions, and one of the worst is the death of the woman. Worldwide, women are expected to bear children and honoured a job well-done as a mother, yet, pregnancy and childbirth is a perilous journey in most developing countries (Ransom & Yinger, 2017).

The purpose of the study is to develop a training programme for elderly women to improve the reduction of maternal mortality in Limpopo Province, South Africa.

Once the study is approved, the project will be explained to the participants, relevant managers, and tribal authorities. An appointment will be made to visit the participants at a convenient time. The study objectives, aims, and benefits will be explained to participants to gain rapport, and the study will only be conducted with participants

willing to participate. The researcher will use a FGD with elderly women and an in-depth individual interview with pregnant women, BMs, and MW for data collection. The focus group interviews (elderly women) will take place at the chief's kraal, and in-depth individual interviews (pregnant women, BMs, and MW) will take place at the respective clinic. The focus group interviews will take approximately one hour, and the interviews will be 30 minutes. The researcher will go back to the field for more data if there is still some information that is useful or has been omitted.

Risks or Discomforts to the Participant: No risk involved

Benefits

The findings will be presented to the Limpopo Province DoH, in other workshops, and national and international conferences. In addition, the findings will be published in peer-reviewed accredited journals for possible publication.

Reason/s why the participant may be withdrawn from the study: Participants can withdraw from the study at any time with no penalties.

Remuneration: *No remuneration*

Costs of the Study: None

Confidentiality: In this study, the researcher will not share information gathered in the research field with anyone outside the research team, such as friends, close family members or any unauthorised persons. The researcher will not use names or participants' identities when reporting the data collected. Coding and pseudonyms will be used.

Research-related Injury: *There will be no compensation in this study*

Persons to Contact in the Event of Any Problems or Queries:

Prof M.L Netshikweta (072 493 3694), Dr N.S Raliphaswa (082 262 7809) and Dr M. Maluleke (079 576 7434), my promoters. Please contact the researcher (072 276 4890), the University Research Ethics Committee Secretariat on 015 962 9058. Complaints can be reported to the Director: Research and Innovation, Prof GE Ekosse on 015 962 8313 or Georges Ivo.Ekosse@univen.ac.za

General:

Potential participants must be assured that participation is voluntary and the approximate number of participants to be included should be disclosed. A copy of the information letter should be issued to participants. The information letter and consent form must be translated and provided in the primary spoken language of the research population.

APPENDIX 4B: CONSENT FORM

Statement of Agreement to Participate in the Research Study:

- I _____ hereby confirm that I have been informed by the researcher (*Makhado LC*), about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: _____
- I have also received, read and understood the above-written information (*Participant Letter of Information*) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerized system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

Full Name of Participant

Date

Time

Signature

I,

.....

.....

.....

(*Name of the researcher*) herewith confirm that the above participant has been fully

Informed about the nature, conduct and risks of the above study.

Full Name of Researcher.....

Date.....

Signature.....

Full Name of Witness (If applicable).....

Date

..... Signature.....

Full Name of Legal Guardian (If applicable).....

Date.....

Signature.....

APPENDIX 5: INTERVIEW GUIDE FOR PARTICIPANTS

INTERVIEW GUIDE FOR THE FOLLOWING PARTICIPANTS:

- **ELDERLY WOMEN (FOCUS GROUP)**

Can you kindly share your roles in participation to maternal health practice about cultural practices?

- **PREGNANT WOMEN AND BREASTFEEDING MOTHERS (IN-DEPTH INDIVIDUAL)**

Can you please share the kind of information you received from elderly women?

- **MIDWIVES (IN-DEPTH INDIVIDUAL)**

Can you please share the causes that might delay pregnant women and breastfeeding mothers from seeking early medical attention?

APPENDIX 6A: PRE-TESTING

FOCUS GROUP INTERVIEW

DATE: 26 FEBRUARY 2022 Venue: University of Venda

NUMBER OF EVALUATORS: 10

Team members comprise the study's promoters: Prof Maluleke and Dr Raliphaswa, fellow doctors who were former research students, PhD students and Masters students.

This is what I pre-tested, and these are the results:

- Allow participants to come up with the ground rules although you can start with one so that they know what to say.
- Tell the participants that the paper given is their name for the purpose of that meeting; after the meeting, they will be called by their real name.
- Indicate prolonged engagement, for example; I hope you remember this and that to show that it is not the first time to meet them.
- Avoid things that will confuse the researcher, such as, we are fine.
- Do not use participants (P), rather use (FG) and focus group, in case they respond at the same time.
- There should be two questions in an interview, one for situational analysis and another one for development
- Ensure that the participant has raised their hand and allow them to speak.
- Do not entertain individual views; engage them all. For example, "does anyone support the idea or is there anyone who disagrees"?

FOCUS GROUP NO 2

R: Good afternoon.

P: Afternoon.

R: How are you doing?

FG: We are fine, how are you?

R: I am fine. As per our agreement, I am finally here and I am so grateful you have given yourself time to come.

FG: Yes.

R: The weather is good today; it is windy, or is it like this every day? P4?

P4: Yesterday and the day before was very windy.

R: Ok, it means that I came at the right day with good weather conditions but even if it is windy, I was still going to work, like we have agreed.

FG: Yes.

R: Ok, let me introduce myself again to you. I am Makhado Langanani, a student at Univen. I am here for an interview with regards to my research study on improving the reduction of maternal mortality. This interview is going to last between 30 minutes and 60 minutes, so let me remind you again that it is for your own free participation and not forced, feel free to withdraw at any time whenever you feel like you want to withdraw and there will be no penalty another thing, as you have papers in your hands with numbers, it is your temporary name until we are done with this meeting, your real name will not be mentioned to you only the code will be used in the study, it means that when you want to talk just raise up the paper. I will call your number then you will be free to talk, you can ask before we start if you have a question I cannot see a paper that means you don't have questions. Do you still want us to continue?

P: Yes.

R: Ok, like I said, my study is about improving maternal mortality reduction. I have a question here that I want to ask you; when you answer you can give it away you know or understand it; that is not wrong. Kindly share with me the care you give them from pregnancy until postnatal or after delivery. So we will start when the woman is pregnant. P2?

P2: When a woman was pregnant during our time, you were not allowed to eat large amounts of food but nowadays they eat as they wish. She was expected to eat small amount of food.

R: Ok, small amount?

FG: Yes.

P2: And when she is near to giving birth, we reduce again to half of what she was getting

R: Ok, what is the reason thereof? P3?

P3: We did this for her to give birth to a small baby and to avoid tearing the birth canal.

R: Ok, is there anything that you can share with us? P2?

P2: Yes, I want to share with you getting the newborn baby, the newborn baby must be fed immediately after it is born because the mother was getting small amount of food so the baby will be born be hungry, so we are surprised nsfas will see the baby is not supposed to be fed immediately.

R: Ok, did I get everything you wanted to share with us? P1?

P1: I agree with what has been said just now by Participant 2?

R: Ok. Participant 3?

P3: The other thing is after the woman has given birth to new rules, not what is done nowadays with the husband carrying the baby, and they all go in the same room and sleep together. The mother is supposed to meet her husband when it is the right time.

R: For how long are they supposed to wait? P3?

P3: She has to meet her husband after six months.

R: Oh ok, any other thing to share with us? P1

P1: It is about the newborn baby, rituals should be performed on the baby.

R: What for? P1?

P1: To strengthen the newborn's bones and stomach, to prevent frequent passing of loose stools. The mother is not supposed to go to the husband's room; a mixture of medicine should be done first. It was hard to extend that you admire your husband when you pass bye you have to wait up to six months.

R: Ok.

P1: Yes, when the baby is six months, they caregiver will come with medication and apply on a stick; the husband stands outside the room while the mother is inside. She gives the husband that stick and the husband will be happy to meet his wife again.

R: Ok, what kind of medicine is that one that is applied on the stick? P2?

P2: I forgot.

R: What about the issue of bangles? P3

P3: It is the same procedure.

R: Ok, when the woman is still pregnant, you mention that she must eat small amounts of food to prevent the unborn baby from growing big and to avoid tearing.

P: Yes.

R: Ok, any other thing to share with me? P6?

P6: Yes, the thing is, she must eat small amounts of food to prevent the baby to come out big.

R: Ok, I mean other things that you can share with me other than that.

P: That's all.

R: Ok, so when the pregnant woman is near term, what advice do you give to her? P1?

P1: We encourage her not to go out because she might fall into labour when she is out so if she is at home, the caregiver at least would be near her.

R: Ok, she is not allowed to go out. P1?

P1: Yes, because she wouldn't know when she will fall into labour.

R: Ok, any other thing? As you said, she must not eat more than enough when she is pregnant. And when she is near term, you cut again to half of what she was getting and that she must not go out alone because she might fall into labour at any time and don't know what to do, do you still have something to share with me?

P: Nothing.

R: Maybe when she reports labour, what is it that you do to assist her? P3?

P3: She just sits down, and we allow her to do anything. When she goes to the clinic, we let her carry a stone and put it at the back in order for her to reach the health facility. She can carry a stick and place it at the back, still the same as that one of the stone?

R: Ok, any stick? P4?

P4: Yes, it can be any stick.

R: Any other thing you can give her to drink when she reports labour pains? P1?

P1: After delivery, she is not supposed to drink anything.

P3: The one that we can at least give something is the one who remains with (shopo) placenta, it is then that we look for medicine, crush it, and let her drink.

R: What do you mean when you said the one who remains with? P3?

P3: I am referring to shapho (retained placenta).

R: Ok, so what do you prepare for her? P1?

P1: We prepare medicine.

R: What kind of medicine is that one? P3

P3: Museto.

R: How do you prepare it? P3

P3: I crush the leaves of museto and let her drink it; it is slippery.

R: Ok, if it slips, what is it that it is doing? P2?

P2: It makes it slippery, and the placenta will just come out.

R: Ok, any other thing? P2?

P2: Let me tell you what I do if shapho remains inside. I touch the patient in the waist order here to cough then the placenta will automatically come out. I don't give medicine.

P1: I agree to work was said with the previous speaker; I do the same even when she is seated down. I let her cough, and it comes out.

R: Ok, you mentioned that if there is a retained placenta, you prepare museto, crush it and let her drink the shapho (retained placenta) will just come out, or you touch her at the waist and order to cough then to remains will just come out?

R: Ok, in other things?

P4: When the mother has given birth, she will usually complain of tshikangala (after pains). It is more painful than labour pains, so I boil (munawa) certain leaves and let the mother drink to treat tshikangala and indeed the pain will be dissappear.

R: Ok.

P4: Yes, tshikangala. They say it is when the abdomen still need the baby inside so that pain is cured by munawa leaves.

R: Ok, so what do you do if the woman is giving birth and the baby is not coming out?

P3: We insert the hand rotate the head and touch the chin, and it will be easy to rotate the head and face in the correct direction.

R: How do you do it?

P3: You insert the hand and feel for the head.

R: Ok, come on, so at the end, the head will come down?

P3: Yes.

R: What happened in the olden days when the mother was giving birth and sustained some tears?

P3: That was not here, isn't it that we use to measure the amount of food to take, so there was no such.

R: Ok.

P2: Yes, we used to deliver a very tiny baby but soon after delivery the baby should be fed.

P4: But when the mother reports that there is pain in the vagina, we used to take red soap and let her bath with it.

R: Ok, what is the name of the red soap? Was it Lifebuoy?

P: We don't know.

P3: The red soap has a name, but I cannot remember it.

R: Is there anything you want to share?

P: That's all; all the network is gone.

R: You mentioned you give small amount of food to the pregnant woman to prevent the unborn baby from growing big and to prevent some tears during delivery. When the baby is born it must be fed immediately because the mother was eating small amount of food so the baby should be fed immediately, when you have given birth you are not allowed to go and meet your husband you must at least wait up to 6 months period and before there are rituals to be performed of sharing the stick, the baby is born should be strengthened and abdomen following the rituals. The woman is not allowed to go out

when she is term, And even if she is out and fall into labour she must carry a stone or stick to prevent to deliver along the way. If the mother has given birth and have remained products of conception, certain medicine is prepared for her to drink or touched on the waist and let her cough then the products will automatically come out. When the mother experiences after pains, Certain leaves of munawa will be boiled and let her drink to cure the pains, When the baby is big and not coming out, the birth attendant will insert their hand and touch the chin and rotate the head, and the baby will come out. You also mentioned that in the olden days it was difficult for a woman to sustain a tear because the baby was small due to the small amount of food the mother was eating, but if she sustained a tear of some sort, she was given a red soap to wash with it, did I say everything that you told me?

FG: Yes, that's all.

R: Ok, is there any other information missing? I may come back again for addition or clarity. Do you have something?

P: No.

R: Ok, thank you for your participation

P: Thank you.

R: Ok, have a good day.

PRE-TEST INDIVIDUAL INTERVIEW

DATE: 26.02.2022 Venue: University of Venda

NUMBER OF EVALUATORS: 10

Team members comprises of our promoters Prof Maluleke, Doctor Raliphaswa. Fellow doctors who were former research students, Phd students and Masters students

This is what I have pre-tested and here are the results

- The issue of covid-19 should be included in the introductory phase

- Insert the objective at the top
- Include the issue of signing the consent form
- Researcher must break eyes or establish rapport with what is relevant to the study or situation for example issues related to covid-19
- Do follow -up question to each and every statement
- Question should start with a title to show that it is a relevant person and setting
- Always look for the gap
- When the researcher switches or crosses the bridge from situational phase to developmental phase, the researcher should ask question so that the participants don't get lost

MIDWIFE NO 2

R: Good morning

P: Morning

R: How are you?

P: I am fine and how are you?

R: I am fine, just that it is hot

P: Yes, it is always hot here.

R: Yes, it is very hot but as per our telephonic agreement that I will come today, finally I have arrived to finally interview you. My name name is Makhado Langanani from inuversity of venda, I have come here to conduct an interview about the improvement of maternal mortality. So before we go further, I want to remind you that we are complying with covid-19 protocols as we have all sanitized at the gate, put on a face mask covering both mouth and nose and maintained social distance. Another thing that I want to remind you is that there is no remuneration for participating in this interview,

your name will not be mentioned anywhere in this study, audio recorder will be used in order to get all the information and not to miss any when transcribing at home and for the sake of my promoter in case she wants to listen to our conversation. Another thing is that feel free to withdraw if you feel you don't want to continue with this interview, do you still want to continue with this interview?

P: Yes.

R: Ok, kindly share with me regarding the barriers that causes pregnant women and breastfeeding mothers to utilise health care services late.

P: Are you referring to booking late for ANC?

R: Yes, even when the woman is coming for labour and postnatal check ups

P: Pregnant women have challenges in such a way that if they start to book for ANC early they end up having many ANC visits.

R: Hmm.

P: Another thing if pregnant woman book early, they hate to be taken bloods repeatedly and they also hate to be tested for HIV, they want it to be done once, so they end up coming late to book for ANC

R: When do you say they come late for ANC booking?

P: Most of them they come here at 30 to 36 weeks and they end up having only one visit.

R: Any other challenge regarding late ANC booking?

P: Some they tell us that they work at plaas wherein the boss or employer don't want to let her go and tell her that if they choose to go they must not come back after they have delivered so they feel that they will start to book when they are about to deliver when they have started with a leave.

R: Ok, any other thing?

P: We have people who are from zimbabwe they first book at their home country and come here and book again as if it is for the first time in fear of producing card from Zimbabwe that will cause her not be taken care of.

R: Ok, I understand, any other thing?

P: When the women is in labour they feel that it is better to stay home because if they go to the clinic early and spend much time there, nurses will refer her to the hospital and they have this perception that at the hospital she is not going to be taken care of and another thing she will experience problems of transport when she comes back home.

R: Hmm ok. Is there anyone at home who will be looking after to make sure everything is going well when in labour at home?

P: It depends on the family because in some instances you find that it is an agreement from a particular family that you are not supposed to go to the clinic now, some they will fell in labour and keep quiet they will just go there without other people noticing that its her time now.

R: Ok

P: Yes some come in an argument with the one who accompanied her because she told her late that she is in pain.

R: Any other cause of delay in utilization of health care services?

P: Some they come from the nearby village and it is not simple to get transport to the clinic and some they will tell me that she did not have money for transport. Most of the women we take care of are from the farm and there is a challenge of transport indeed.

R: Ok

P: Yes and some they come and book here for example at madimbo clinic they don't usually transfer even if you are a high risk patient so most of the women they come here on an advanced stage of pregnancy to book whereas she already book from another clinic around and was told that she will be referred to hospital so she comes here as if she is starting now.

R: Ok, what could be the causes?

P: To those who have already delivered and they are HIV positive they know that when they come to the clinic the baby will be tested and on prophylaxis so they feel its better not to come to the clinic because she doesn't want to tell the family members at home and the baby comes to the clinic being grown up not on treatment.

R: To those that are HIV positive are they not getting treatment?

P: Most of the HIV positive they are initiated to PMTCT programme but they default the programme.

R: Ok, I understand, any other thing?

P: Some are caused by having attitude towards a certain nurse then when you ask what causes her to delay seeking health advice early she will tell you that there was a misunderstanding with a particular nurse and develop a tendency of not going to the clinic because of that.

R: Ok, I understand. How do you deal with that issue for her to continue to come to the clinic.

P: Is to sit with the patient and ask what really transpired and then advise the person to raise a complaint to the clinic manager or clinic committee to try to resolve the issue

R: Hmmm.

P: So most of the time it helps because we deal with the matter and resolve it.

R: Hmm, do you still have something to say?

P: Another thing can be that we face challenges of not having a place to write and submit data which state the place where the woman comes from because sometimes a women can cross border with labour pains and come here late.

R: Do you still have that which causes a patient to delay in seeking help from the clinic?

P: Some they don't have reason but choose to delay.

R: Maybe if I can ask you further, do you have instances wherein you can ask the relative who accompanies the woman to the clinic on the cause that delay woman to seek medical help.

P: Yes they come relatives and if we ask them they will tell me that she is so arrogant and we were not aware of the situation she is on, because she did not tell them that she is in pain.

R: Hmm.

P: Sometimes you will be told that this one is from Zimbabwe, there is no better service there that's why she came here to seek medical services.

R: Ok, I understand. So in this challenges how are this issues to be addressed or resolved?

P: It will be much easier if each and every challenge is addressed individually because they are different, for instances challenges of transport especially those that work in the farms, challenge of those who are from Zimbabwe, those who don't want to come to the clinic in time with no apparent reason, challenges of money so the challenge of those who work in the farms and those who don't have money at least we can have mobile clinic to reach the community so it will be easier to access health care services.

R: Hmmm.

P: This issues cannot be resolved completely because the Zimbabweans say the health services at their home country is poor so maybe the countries can find a way to

can resolve this issue, maybe if the department of health can collaborate with department of agriculture so that the farm employers can be told to release their employees if they need medical assistance.

R: Ok, how can this happen so that we can have mobile clinics and the communication between department of agriculture and health for the farm employer to release their employees for medical assistance and where?

P: Feeder clinics and hospital midwives and management when they sit or attend meetings for maternal and perinatal death is where this kind of challenges can be addressed and find resolution on how to deal with it

R: Ok, I understand is there any way we can also address this challenges accept the one you talked about?

P: No, I have said my mind.

R: Do you still have something in you mind that you can talk about?

P: No, that's all.

R: Ok, thank you for your information you shared with me, your name will not be mentioned or appear anywhere in this study. No remuneration for participation on this study. If there is any information that I would need later I will come again but feel free to withdraw if you feel like you don't want to continue. Is there anything that you want to say?

P: No

R: Ok, thank you. Have a good day.

APPENDIX 6B: TRANSCRIPT FOR ELDERLY WOMEN

OBJECTIVE 1: To explore and describe the roles of elderly women in participation in maternal health practices in Limpopo Province, South Africa.

R: Good afternoon

FG: Afternoon

R: How are you doing?

FG: We are fine.

R: I am fine today; today is very hot.

FG: Yes.

R: As per our appointment for today, I finally arrived.

FG: Yes, we've made an appointment.

R: As I have told you, my name is Makhado Langanani from Univen; doing my research study that concerns pregnant women, so I came here to interview you as caregivers of pregnant women and breastfeeding mothers, let me remind you that we are following COVID-19 protocol as we have all sanitised when we enter by the gate and we will continue throughout until we are done with the interview, we've put on mask and social distancing maintained. Before we go on, let me further remind you that we agreed that I will use an audio recorder and is recording this meeting. Furthermore, I have read you an information sheet as I told you that your names would not appear anywhere in the study. Today you have been given a new name for the purpose of the interview as you will all have papers with a number in your hands so if you want to answer or say

something you must first raise up your paper and your number will be called to allow you to talk, after when we are done with this meeting you will go back to your respective name, I will be doing this to prevent to write your name as it is not needed. Another thing is that I want to remind you that we talked about is that I will use audio recorder so that I can be able to write down all the information that was said without missing anything. So I will ask you to raise up your hand whenever You feel you want to go and if you also want to say something you don't want it to be recorded here then I will stop the audio recorder then you talk and when you are done I will continue to record again, Another thing that I would like to remind you is that if you feel like you don't want to continue with this meeting, feel free to stand up and go without being forced by anyone and even here at the chief kraal no one will punish you, Coming to this meeting is your choice after you have agreed verbally to participate, remember I said there is no remuneration in participating in the study, you are giving me the information free of charge. Therefore we are going to use tshivenda language as we are all tshivenda speaking grannies. I repeat myself if you feel like you don't want to continue feel free to withdraw so I want to hear from you whether you are free to participate?

FG: Yes we will continue.

R: Ok before we get into the business of today, let us formulate the ground rules for the smooth running of this meeting I will start and you will come up with other ground rules, my first ground rule is that when we speak we have to listen to the speaker and if you feel you want to talk, you must first raise your paper up, and you will talk when you are allowed to talk, what are the ground rule can you come up with, P3

P3: When one is talking, do not interrupt her.

R: Yes when one is talking do not interrupt here it means that you have to listen to her first, if you want to talk as well you must first raise your paper up, you will be given time to speak, which underground rule can be added? P1 can see you have raised your paper up.

P1: When one is talking you do not have to laugh at each other.

R: Yes, P one said do not laugh at each other when one is talking, so we don't have to laugh at each other we must respect one another, you can end of the ground rules still allowed.

P4: When one is talking and you know about what is being said, you are allowed to support the idea.

R: P4 said we have to agree to each other if we know about something that was said. Any other information that you wanted to add? P3 has raised the paper up.

P3: We must put our cell phones on silent mode so that they must not disturb us.

R: I think we have set our ground rules and it is enough, so we will run this interview smoothly guided by these rules that we have set, so now let's enter into the interviews deeply as we are here for, so let's start with our interview.

Question for Phase 1 objective

Sitting here as caregivers of pregnant women at home, kindly share with us that if you have a pregnant woman at home, what care do you give to her?

P4: When is your report missed period, to me I will tell the elders of the family.

R: Okay, I will tell the elders of the family what could be the reason let us all share information regarding on what has been said by P4, P3 I can see you have raised your paper up, kindly share with us.

P3: Yes when she report pregnancy, We call a caregiver who will give her some advices as she is pregnant and that she will pass through many things so she must listen to her

(caregiver). Can you give will ask how many months do you have and then the caregiver will tell the elders as it is our practice in venda culture, I am adding to what P4 has said.

R: Ok, any other information you want to add? P2 you have raised your paper you can talk.

P2: Therefore, we tell her not to tell anyone that she is pregnant, she must hide it.

R: Ok, anyone who wants to add information regarding to what has been said by P2 that they must hide the pregnancy until such time she cannot hide it, P3.

P3: Yes, when one is pregnant you have to hide it because other people are jealous to an extent that they will cause you to have something that is not good to you.

R: Ok I understand so I want us to talk about the issue that was just said now by P2 and P3 that win one is pregnant she must hide the pregnancy and she has to go and book for ANC, so when do you allow her to go and book for ANC? P1 you have raised your paper you may talk.

P1: She has to go and book for ANC when she is three months pregnant.

R: Ok, is there anyone who wants to add something? P5 you have raised your paper, you may speak.

P5: Yes, it is true she has to go and book at three months.

R: Ok, I understand. Any other cat that you give to a pregnant woman at home, P2?

P2: She must not eat hot porridge.

R: Any other person who wants to add information, P4?

P4: Yes, I want to add that she must not eat hot food.

R: What will happen if you eat hot food, P2?

P2: To prevent burns on the baby and to avoid baby to be born with birthmark (mavhudzi).

R: Any other information regarding the care of the pregnant woman here at home, P4 has raised the paper; kindly tell us.

P4: We always tell them that this is not allowed and that.

R: Ok, what is it exactly?

P4: Do not accompany a person and make a turn on the way.

R: Ok, anyone who wants to add on what the previous speaker has said, P3

P3: When you give a guidance there are so many things that we tell her for example when you are pregnant you are not supposed to say goodbye to a person when they leave, when they leave she must be inside the house so that she must not see them when they leave. And even if it is her husband if he comes back from Johannesburg, when he leaves she must not say goodbye to him, The reason behind all this is that she will not give birth even if she is due, she will wait for the husband to come back home in such a time it is then that she will deliver.

R: Ok.

P3: Yes it works like that even when she is due she will not give birth, she will wait until the husband comes back.

R: Ok, I understand. Any other information to be added, P2 raised her paper, kindly tell us.

P2: When she goes out she must not use the window instead she must use the door or gate.

R: Ok, what is the reason behind that? P2 or any other person who can share with us.

P2: The reason is that she will give birth through operation because she did not use the door or gate.

R: Ok, I understand. In other information that you can share with me? P3?

P3: A pregnant woman must not eat cold food or cold porridge and if she wants to eat porridge she must go to the toilet with a piece of cold porridge before she relieves herself she must first eat that cold porridge then relieve herself.

R: Ok, is there anyone who wants to share further on this matter? P2 read the paper give me speak.

P2: It is true pregnant woman must not eat cold porridge.

R: Ok, any other thing with regard to the care or information you give to the pregnant woman? P3?

P3: A pregnant woman when preparing for the fire she must not take the wood by its tail it is a taboo, when she gives birth the baby will come with legs first and it is not normal.

R: Ok I understand, any other thing? P3 you can continue to share with us I can see you have raised a paper up.

P3: Yes the other thing is that a pregnant woman when she approach eight months of pregnancy I tell her that she must stop to have sexual intercourse because the head of the baby is down and the semen will stuck on the head of the baby and it is not a good thing especially to the old women who will assist the mother on the care of the baby after delivery.

R: Ok, any other things that you want to share with me? Regarding the care of pregnant woman? P4 raise the paper you must speak.

P4: When the pregnant woman is about to reach term, The caregiver is not supposed to pay visit and sleep there, she must stay with a pregnant woman so that she can assist her when she falls into labour.

R: Ok I understand, is there any information left? P5 you are very quiet, don't you have something to share with us.

P5: Yes I can say something, pregnant woman is not supposed to pay visit and sleep there she must come back home and sleep at home.

R: What is the reason there of ? P5

P5: They say it is a taboo, she must always sleep at home.

R: Is there anyone who want to add in this matter? P2?

P2: And it is a taboo, what if she gives birthday where she visited.

R: Ok, I understand, any other information that you can share with me regarding the care you offered, P2 you may tell us.

P2: When a pregnant woman is about to give birth, this should be done she must do

steaming (u aravhedziwa).

R: P2 I didn't get it clear when you said u aravhedziwa Can you kindly elaborate on that matter?

P2: Yes u aravhedziwa so as to open the way (birth canal).

R: : Is there anyone who wants to add on this matter. P3 can you kindly share with us.

P3: Yes I agree with her (P2) when we steam (aravhedza) we are doing it so as to open the way because some of the pregnant woman find that the way is not open some of the time.

R: you have indicated that when a pregnant woman when she is about to give birth ua aravhedziwa, So assist her to do such rituals and what is it that is used to u aravhedza, P2 tell us?

P2: Traditional healer is the one who perform the ritual.

R: Ok, so who take the woman to a traditional healer? P2?

P2: I will take her to a traditional healer.

R: Ok, I understand, so when did the mother in law notice when she takes her to the traditional healer, P2?

P2: I just assume that let me take her to the traditional healer so that he can assist her to open up a way for the baby.

R: Ok, I understand. Do you still have something to share with me? P2 again, you can tell us?

P2: Now when she feels labour pains and the mother-in-law noticed that she can deliver along the way, she is been given a stone to put it at the back so that they must arrive at the facility.

R: Ok, is there anyone who wants to add information regarding the point that was said just now? P5 raise the paper you must speak.

P5: On arrival at the facility she takes out the stone so that she must be able to deliver normally.

R: Ok, I understand, I want to know here on the point of putting a stone at her back and take it out on her arrival to the facility, what makes her to put the stone? Is it because she is late to seek medical attention or she has been given something to drink or eat too fasten the process? P1 you have raised your paper share with us.

P1: It is because she reported late that she is feeling pain to an extent that the pains are getting worse is then that they will let her put a stone at her back.

R: Okay, I understand, do you still have more information regarding this point, P4?

P4: Yes I agree with P1.

R: Ok, P4 I ask a question that what makes her to put a stone at her back to prevent here giving birth along the way?

P4: She reported late that she is feeling pain.

R: Ok, is it not coming from the family member who said she must not rush to go to the hospital, P4?

P4: We are afraid that things will go in the wrong way and give birth along the way.

R: Ok, I understand, you mentioned that she had reported late that she is feeling pain, so I asked that didn't you give her something then you are afraid that she will deliver along the way, P1 you have raised the paper tell us.

P1: There is nothing that we can give to fasten the process of giving birth it is only at the hospital where they do like that.

R: Ok, I understand, any other thing regarding the care of pregnant woman at home, P3 raised the paper.

P3: I want to talk when the baby is born and come back home, the baby and the mother have to stay in a separate room with caregiver (old woman) she no longer goes and stay with her husband in the same room, no. Wendy is staying in a separate room not everybody is allowed to enter the room, only the caregiver is allowed to enter because the baby is still young. Even the old woman who can come and pay visit to see the baby she must wash her hands after she touches the baby not everybody touches the baby.

R: Ok, is there anyone who wants to add in that matter, P1 raised her paper you may speak.

P1: For this one to wash hands when she is in the newborn baby's room the reason is that when she goes out without washing hands, the baby (ha nga naki) umbilical cord will not fall down.

R: Ok I understand. Any other thing? P3 raised paper you may speak.

P3: When the umbilical cord falls down, we wait for four days and on the fifth day we expect the mother of the baby to (losha) And report that the baby is your umbilical fall down, Then the caregiver gets happy and take the stump in report for the rest of the family that now the baby is clean, Then the mother is allowed to go out and prepare water for yourself without Being assistant. But she is not allowed to cook for the rest of

the family.

R: Ok, do you want to add on what was said by previous speaker? P5 raised the paper, tell us.

P5: The mother is not allowed to cook for the rest of the family because we are afraid of breastmilk (Mikando)

R: Ok, when do you allow her to cook for the rest of the family if I may ask? P1 raised the paper you may speak.

P1: She will start to cook when the baby start to sit down.

R: Ok, I understand. Any other thing, P2 raise the paper you may speaker.

P2: When they umbilical cord of the baby falls down the caregiver and other old women take it and place it on the eyes with the purpose of preventing the eyes from blindness.

R: Ok, any other thing? P3

P3: When her mother starts to cook outside it is the time where we start to shave hair on the baby's head which was born with it, the mother is then that she will (losha).

R: Ok is there anyone who wants to add, P4 raised the pepper whom I speak.

P4: When we say it is time for the baby to come out of the isolation room, we call the traditional healer to come and perform rituals to the baby (u mu thusa).

R: Ok, any other thing? P3

P3: When it is time for the father to see the baby, the mother must first prepare water

and wash the legs of the father and after that she must take a bangle and put it in her husband and it is then that they will be together again including the baby.

R: Ok, is there anyone who wants to add on this matter? P2 raised her paper kindly tell us.

P2: All this is done to prevent the development of abnormal veins.

R: If you develop abnormal veins, is there any problem? P2?

P2: If he develops abnormal veins it is not allowed it is a taboo.

R: Ok, I understand, any other thing? P4 share your mind.

P4: It will be time for the baby to come out of the fence.

R: For how long will it take for the baby to come out of the fence? P4?

P4: It might take one month or two.

R: P4 kindly tell us your practice in your home.

P4: We let the baby come out of the house and we go next to the gate, the mother of the baby will start to clean around the yard.

R: Ok, I can see P3 raised the paper up maybe she wants to say something, let us all here from here.

P3: Yes about the baby, the baby must first be at the age of three months to get out of the yard, the mother should Carry mealie meal and go next to the gate and cook a soft porridge for the baby as a matter of performing some rituals, the mother will feed the baby soft porridge after that they collect some wood and we even plough and plant a

seed. When we go back to the house the mother will be given a baby to place at her back and she will also carry a bottle of water on arrival next to the house, we split the water into the roof so when the water falls down will let the mother and the baby stand where the water falls so as to get wet as a means of the baby to be able to plough when you get old.

R: Ok, I understand, is there anything to share? P2 raised the paper share with us.

P2: The baby is not supposed to be touched by everybody because other people are so jealous in such a way that they may end up injuring the baby's diaphragm to destroy her.

R: Ok I understand, do you still have information to share about?

FG: Nothing.

R: Ok, but if you think of something left behind feel free to say it because we are not finished yet we are still continuing. You mentioned that when you have a daughter in law here at home as soon as he missed his appearance you must report to the elders and start to give a Health related advices like when you are pregnant you have to hide it and not telling anyone then she must start to attend ANC after three months, you also mentioned that she is supposed not to eat hot food because the baby may be born with birthmarks and that he must not stand by the door side and she must not accompany visitors and she must not say goodbye to the visitors even if it is her husband in case he works far from home. She must not give someone something by the window, she must not eat cold food and when she starts making fire she must not put it at its end instead it should be put at the beginning to avoid the baby to be born breech presentation. Can you give her at home if there is a pregnant woman she is not supposed to pay visit and if the pregnant woman is visited someone she must not sleep there. The other thing is that if a pregnant woman is about to deliver she must start to (u aravhela) to open up the birth canal. If the pregnant woman is in labour pains and sure that she will arrive at

the clinic or hospital you let her put a stone at the back to prevent her to give birth on the way and she will take it out on arrival to the health facility, you also mentioned that she must not go and sleep with her husband when she comes home with the baby, she must stay in an isolation room with the caregiver until the umbilical falls down, she is not supposed to cook for the family, she'll only do that when the baby is six months old or when the baby starts to sit down, When the umbilical cord Falls down it must be taken and placed on the eyes to prevent blindness. The baby's hair will be removed and the traditional healer will assist by doing rituals to the baby and it is then that the baby will come out, When the father of the baby wants to see the baby, the mother will first wash the legs of the father and take out the bangle and put breast milk and give to the husband to wear the bangle and it is then that the father will be allowed to see the baby The time will come for the baby to go out next to the gate at the age of three months where the mother will cook soft porridge and feed the baby, plough and plant some seeds and the mother will be allowed to care of the baby on her back, when it is time to go back to the house she will carry a bottle of water, the caregiver will splash The water on top of the roof and that water will fall down and we let the mother and the baby to stand with the water falls so as to get wet and it will be a sign that the baby will plough when he gets old. Do you agree with this information that I have said?

FG: Yes.

R: Let's continue with our interview, you mentioned that when she missed her period she must hide the pregnancy and that she must start with ANC at least when she is three months old, is it not late booking for antenatal clinic? P2?

P2: It is not late.

R: Ok, ANC a there is a lot to be done for screening like taking of blood and to check the well-being of the baby and when she goes in three months who looks after her before she start with ANC.

P2: Caregivers (us) at home look after her.

R: Does the caregiver have knowledge to take care of the pregnant woman.

P2: We don't have knowledge on the care of pregnant women, that is why they allow her to go to the clinic to be checked by nurses.

R: You allow her to go in three month's time you also mentioned that she is supposed to aravhedziwa when she is about to give birth and this is done with the assistant of traditional healer and the caregiver who is the purpose of opening up the way of the baby, but literally there are those who don't have good waist for normal bath, Do you think that can assist even those that don't have good waist for normal vaginal delivery?

P2 raised paper up you may speak.

P2: Nurses will check her and tell whether she will deliver normally or not.

R: Ok, but she will be attending ANC on a monthly basis, so do you still take her to traditional healer even though she was told that she will not give birth normal, P2 tell us.

P2: Yes we still continue thinking that maybe it will work out.

R: Is that what you believe in?

P2: Yes.

R: Ok, you mentioned that you let her put is stone at the back because she fails to report early that she is feeling pain to prevent giving birth along the way, what makes her not to report labour pains when it started? P2 and P3?

R: P2 and P3 raise the paper, so we will start with P2.

P2: The thing is that she is arrogant and told herself that she will not tell.

R: Ok, let us all debate in this matter on what makes him to be arrogant because he was being taken care of since pregnancy started, P3.

P3: Yes she can be arrogant especially the ones who are pregnant for the first time not knowing that when she feels pain even with the baby is feeling the same and the baby can be in danger. She will just decide to keep quiet and even if she knows that it is her month to give birth.

R: Ok, when you are taking care of her don't you tell her that when you're about to give birth you will experience this and that? P2

P2: No, we don't tell her, they just assume that when she feels pain she will tell us until such time when the pain is unbearable.

R: Ok, as a caregiver looking after her how come you didn't notice that she is changing her face and behaviour so it means something is not right to her? P4

P4: Yes we take care of her but if she is not telling us is then that will ask and sometimes you will notice the strange behaviour late, and they are quick to give birth and some not.

R: Looking at this matter, you mentioned that you don't tell her that she will experience this and that when she is about to give birth, you perform rituals to open up a way because you don't know whether she will deliver normal or not, you mentioned that she has to start attending ANC after three months, So when I see here do you have knowledge regarding the labour pains or you don't know whether she will take long to give birth or not.

Question for phase 2 objective

What do you think can be done for this woman to say it when it is still time that she's feeling pain?

P3: What I can see is that I must tell her everything as I will be knowing when she is at term, it is true I must tell her that previously we were not telling them, we are learning

R: Ok, I hear you saying that you are learning so it means that for you to have knowledge do you need to be taught?

P3: Yes, previously we used to keep quiet because we are afraid that we will be instilling fear to them so now you have open our mind that we have to tell them on what is she going to come across

R: Ok, so who are those people who you think they can teach you all how to take care of the pregnant woman? P5 and P3, you have read the paper?

P5: Mother-in-law at home.

R: P3 you may tell us.

P3: For us as caregivers of pregnant women at home, nurses are the ones who are supposed to teach us.

R: Ok I understand. You mentioned that nurses are the ones who are supposed to teach you, so who are those nurses? Who can teach you because they are different kind of nurses? P3

P3: Nurses who take care of pregnant woman (midwives) are the ones who will teach us because they will ask us if We stay with the pregnant woman then we will say yes, so they will teach us there at the clinic.

R: Ok, anyone who can add or who wants to say something regarding what was said by P3? P3 mentioned that she can be taught at the clinic while accompanying pregnant woman lets hear what others have to say. P4

P4: Nurses are many, they may call us here at chief kraal and teach us.

R: Ok, is there anyone who still have something to say, I can see no one has raised the pepper up. is there anyone who wants to share information?

FG: No.

R: Ok, I understand when you mention that as caregivers at home for pregnant women you want to be taught by nurses who take care of the pregnant women and who contact delivery, you mentioned that you need to be taught at the clinic or what day is it called the Chiefs home you can be called and be taught there. Okay it is well understood. So after you have been taught what is it that you want to achieve at the end.

P3:To be able to have knowledge on how to take care of the pregnant woman at home as a caregivers.

R: Ok, I understand, let me take this opportunity again to thank you in participating on this interview, let me again remind you that I have audio recorded all the information so that I can write it down and I have explained before, no remuneration in particularly to this interview and your name was never mentioned throughout instead numbers were used that you can have on your hands before we closed is there anything that you have in your mind that you want to share with me.

FG: Nothing.

R: Ok, thank you. Have a good day.

APPENDIX 6C: TRANSCRIPT FOR MIDWIFE NO. 8

OBJECTIVE: To explore and describe the views of midwives regarding the barriers to delaying pregnant women and breastfeeding mothers from seeking medical attention.

R: Afternoon

P: Good afternoon

R: How are you doing?

P: I am fine, how are you?

R: I am fine, it is hot today even though it is windy.

P: Yes it is hot, sometimes we experience cold weather it changes every time.

R: OK, here at the clinic where you are working seems not to be busy because I can see now in the afternoon that there are no patients

P: There are times when it is busy and there are times when it is not busy, it always changing. There are times when it is busy and sometimes cool with no patients.

R: Hmm, like today it is cool there are no patients.

R: Ok, I understand. Like as I told you my name is Makhado Langanani from Univen as per our telephonic conversation, I finally came for an interview regarding my study on the reduction of maternal mortality, so I am here today as per our agreement for the purpose of the interview, as we have agreed before that I will use audio Recorder it is now on busy recording us since we started upon to the end. As I have reminded you about COVID-19 protocols I am glad we are following it as we have all sanitised before we sit down, we have a mask on and we have maintained social distancing. Let me again remind you that you have already signed consent form to participate in the study, so thank you let me again remind you that as I have already told you, there is no remuneration when participating in the study and that your name will not be mentioned

anywhere in the study, only the code in the information you give will be written down when reporting and the other thing you are not forced to participate in the study, you can withdraw now or in the middle of the interview if you feel like you do not want to continue without any penalties. After all the information that I have given you do you feel that you can continue?

P: Yes, Let's continue.

R:Ok, thank you.

Question for Phase 1 objective

R: As a healthcare worker here at the clinic, working as an accoucheur kindly share with me, what might be the causes delaying pregnant women and breastfeeding mothers to seek early medical attention at healthcare facilities like here at the clinic?

P: What I can firstly tell you that makes the woman to delay is lack of knowledge, some of the women have lack of knowledge with regard to early booking for antenatal clinic because you'll find that the woman will come here at over 30 weeks of gestation and you will find that when you take bloods for screening it will be difficult and is already exposed to certain disease. Let me first say this that they lack knowledge but I can see this as a second point that sometimes it may come from being ignorant on themselves because if you can look at her, you will find that she is not pregnant for the first time, so with the previous pregnancy she did not have knowledge on how can she benefit from early booking for antenatal care but with a second pregnancy she chose not to follow it, sometimes you will hear them (women) saying that I will come and book at six or seven months then you will feel that I have to teach her on the benefits of early booking for antenatal care but if one choose not to do it you find that she will still come late around six or seven months

R: Hmm.

P: Yes, sometimes from the teenage pregnancy that is point number 3, teenage pregnancy you will find that they sometimes have fear to tell their parents and sometimes not willing to accept the baby so it makes her to come to book late for antenatal clinic because the first thing she don't accept that baby and the other thing is fear from the parents that they will accept her and the baby until maybe it comes to a parent mind and be the ones who may encourage her to come for a antenatal care

R: Hmm.

P: Yes, otherwise most of the things that are barriers for utilising healthcare services are those that I have mentioned. Some of the things that I can say is that, does that come from foreign countries (Zimbabweans) because here they are near us, you will find that the clinics at their home country are far from them so they are compelled to come here with the aim of giving birth year in South Africa maybe to get even the road to health card here and for her to get things easier in some of the things she aimed to. She can fall pregnant while in her own country and come here to book while on advanced stage of pregnancy where as even when she was still at your home country she did not book but the biggest aim is for her to give birth here in South Africa, knowing that she is having a relative home they will accommodate her then wait for her time for giving birth.

R: Ok, you mentioned that some they do have lack of knowledge and come and book late for antenatal care when she is around or over 30 weeks, so it is understandable that this woman Malik knowledge, are these women pregnant for the first time or had previous pregnancy?

P: Most of them will be the first pregnancy, when she told herself that it is something not serious because if she was having a knowledge she wouldn't take it as something that is not serious because if she once came here for antenatal care she would have some information as we usually give information with regard to benefits of booking early antenatal care.

R: Hmm, So to those who you said most of them lack knowledge are the ones who are pregnant for the first time, don't they have family members whom they stay with you at home or do you think even those whom she stays with have lack of knowledge?

P: I do not know what really happens to the pregnant women because sometimes when they are pregnant they do develop an arrogant tendency in such a way that even when someone is telling her to go to the clinic and book early, she will just say I will go and not come you will notice this when you make some investigations, you will find that the parent will just say I told her to go and start to book for antenatal care but she don't just want to come.

R: You mentioned that there are people from foreign countries like Zimbabweans for example, they come here to seek for better medical assistance here, while even at her home country she did not book for antenatal care and when she comes here she falls under late booking. Do you ever enquire whether she booked while she was still at her home country or is it just that she don't want to disclose so that she can get full service here?

P: There are some of them that became honest and come with a book, indeed things from Zimbabwe are still low in such a way that she will just come with a minute book to show that it has an information regarding antenatal visit, but there are those who also come with nothing here. To those that come with the book, I will simply convert it to the antenatal care book which we use here in South Africa but there are those who totally they don't have. I remember another lady whom she is an old one came here on advanced stage of pregnancy at around 36 weeks of gestation she doesn't have anything, no book for antenatal care, you have to start here afresh, You don't know about HIV status, any blood group level of HB how safe it is to her and her baby. You just starting a fresh so you will understand some of the things it is just a burden to us and it is not right.

R: Hmm, ok I understand. Tell me more that you think it is a barrier for the pregnant woman not to utilise early healthcare services.

P: The other thing might be that, we as Health care workers we are feeling to give health education to the women so as to know the importance of early antenatal care booking or to know the complications that may arise when they book late for antenatal care. Maybe if they become knowledgeable they might understand and have less that might take it seriously but mostly is the realise that when they book early it will put them in the safe place when one is pregnant they may help most of the people if we give ourselves time to teach people in our institution or if we may get healthcare worker and teach this kind of information to school because even the school going children and falling pregnant so topic like this when you fall pregnant and you are still young we shouldn't hide them, it will be helpful if we can teach them to avoid late booking.

R: Hmm, you can tell me more whilst still looking at the barriers during pregnancy.

P: Some other thing that one can tell is that even when the person is old you will find that the person is not accepting the baby and having some sort of problems and some have tried other ways to get rid of the pregnancy and do TOP and fail but still being on that denial stage of not accepting the baby even if it was not on my plan, the baby just came by mistake, so those are the other things that you can see that other people denied to have the pregnancy and accepted it at a later stage.

R:Hmm, ok I understand. You can still share more with me while we are still looking at pregnancy. Do you still have more to share?

P: Yes, what I can share is that when a pregnant woman reach full term, when she's around forty weeks, Another problem that we face here at the clinic is that some of the women they delayed coming to the clinic, they first progress themselves at home sometimes you can hear her saying that I will never allow you to refer me to the hospital if you think you will refer me, I will stay at home and arrive here when I am about to give birth and that is where we experience problems because she will arrive here being fully dilated or with the head on perineum and you find that there is nothing that you can do but the problem arise when there is big abdomen, that is where you will find the baby is tired and there is meconium stained liquor and fetal distress, you don't know what to do still you can assist the woman at your level best, but because she has

progressed herself at home, it leaves us with a problem when the baby dies and where it can be probably preventable and as healthcare workers we face some stress that I could have saved the baby. The mother will also experience some stress because the baby has died so these are the things that the women do most of the time.

R: In other words you are saying that when the woman is told that she can be referred to the hospital for delivery, she decides to stay at home and progress herself when she falls into labour until she is about to give birth is then that she will come because you don't want to be referred to the hospital even when you have told her that you will be referred to a hospital you are not supposed to give birth here maybe due to some other contra indications like big abdomen. So what do you think might be the problem if women don't want to be referred to hospital like in the case of a big abdomen?

P: These women have their own belief that as the hospital people undisputed. They have that kind of mentality, when they come here at the clinic you will find that you want a one on one, you give up all the care for labour and she enjoys that, so I do hospital that I mean then she feels that she is not getting the attention so that is why most of them will say I don't want to give birth at the hospital, I will give birth here, so they think they will not get enough attention whereas it is what they believe in because they have been cared for at the hospital. It is difficult even for those who are attending high-risk clinic having so many visits at high risk and when she is told that she will deliver at the hospital, booked for her for hospital delivery, given a date for referral to the hospital but they will decide to stay at home and progress herself and you will find that these women have cases like previous ceasar, big abdomen, non-chronic hypertension, And now you find out that she has put you in a stressful situation, not knowing what to do when you call an ambulance you'll find that it is far away like Masindi area and it is only one ambulance, you will have to wait for it, contractions are on and the baby gets tired and it is where complications arise so if that person listen to what she was told she was going to get out when there is still time.

R: Hmm, tell me more on the barriers the delay pregnant women to seek early intervention at the clinic.

P: The other thing that causes delay is lack of knowledge in case of primigravida not sure whether the pain she is feeling is a sign of labour, so if she is not sure she will just tell herself that it is just a turning of the baby, so most of them they take it like that and make her to arrive at the clinic late though most of them were taught about true signs of labour. Some are so arrogant, you find that when they come here, when you ask her when did you start feeling pains, she will tell you that it started around 10 yesterday and when you ask Further and say were you feeling pain the whole night and why didn't you come to the clinic, she will tell you that no I thought it will stop, so you will see that she delayed herself until the baby becomes tired inside because she was not sure of it but sometimes she knew it and decided to keep quiet not telling the family members, so when she comes with a caregiver who is accompanying her when you ask, did this pregnant woman told you that she was feeling pain all night long, the caregiver will respond to me that no she didn't she just told me now in the morning that she is feeling pain. So those are some of the things that happen.

R:Ok, tell me more.

P: Some of the things maybe that we can look at is the distance from her home to the clinic, she has to walk long distance to the clinic, if looking for the transport, it may arrived late while long been standing by the road, like in this area it is very difficult to get public transport, so some when they pass they will just pick her up with their own private cars and place her here as a means of assisting her, so in this case it sometimes makes her to delay in seeking help.

R: Hmm, How many villages are being serviced by this clinic?

P: It serves tshiunga, mabvete, Maswanganyi and matshena, Then all in all they are four villages served by this clinic but even though you will find that you still serve other villages other than those that I mentioned earlier on like Malele, madimbo, muswodi, zwigodini, mukovha wa bale, Women will just passed her local clinic and come here like a person from Madimbo, when you ask her she will tell you that I prefer to be assistant here.

R: Hmm, tell me more regarding the barriers that delay pregnant women to utilise local health care services.

P: For now I do not see any other thing unless maybe if we can look on the postnatal issues, when the woman has already given birth they feel free to come to the clinic and they are happy most of them they are faithful and keep the dates for coming to the clinic, I mean 1 out of 10 can decide to stay at home but most of them they bring the babies for immunisation. The one who can decide to stay is that maybe she is working at the farm and find that she is lazy to bring the baby and stay there for a longer period and be surprised the baby is now 18 months but it only has doses that she got at Bath it is a problem. So the mother after giving birth will decide to go to the farm for work and stay there with the baby but not taking the immunisation of the baby seriously. When you ask her what happened when you don't come for check-up and bring the child for immunisation, she will just say this and that which does not make sense because she is aware that the baby should get immunised. So you can easily identify ignorance from the mothers side because she is aware that the baby should be immunised from different kinds of disease, so most of them they are faithful and make an effort that their babies should be immunised, for example they can even phone here at the clinic to enquire whether the immunisation drug is available or not because we do experience some shortage so it is the department which sometimes disappoint people. They do phone and enquire about immunisation drug.

R: Hmm, maybe I can ask you with regard to breastfeeding, when this women when they bring their child for immunisation and postnatal checkup, are they doing exclusive breastfeeding or are you facing some sort of challenges?

P: Yes, they practice exclusive breastfeeding but when you check it is not all of them that are following, you will realise when you hear them saying even though she cannot tell you directly. Because they just do it and they know that it is not allowed because we don't tell them the new-born should be exclusively breastfed up to episode of six months but because they knew that there is something that they do which is not allowed, you will hear them saying that even the soft porridge must time not give the

baby, so you will then realise that I cannot encourage her to do that she must just do exclusive breastfeeding the baby will grow healthy. Most of them they comply but some they don't they are things that they do when they are at home. To show that there are some of the things that they do at home, you will hear them saying the problem is that the breast milk is less than is expected to feed the new-born and the new-born is crying because of hunger, and the caregiver at home said we must give the baby soft porridge it will work, so they do fit soft porridge to the little ones before time not all of them are practising exclusive breastfeeding. Those who are giving their new-born soft porridge they do it in such a way that you will find that the baby will come to the clinic with the problem of aspiration.

R: In other words, you are saying that you do teach this pregnant women and breastfeeding mothers regarding exclusive breastfeeding but the caregivers at home when they take care of them, they do tell them that they must cook soft porridge for the newborn because the newborn is crying due to hunger, not getting enough from breast milk.

P: Yes.

R: Ok I understand, do you still have more to share?

R: No, I don't have much to say.

P: Ok let me summarise what you have told me, you said some pregnant women have lack of knowledge and some are ignorant even after you have taught them you still find her not coming to book Alie for antenatal care as it is not for the first time falling pregnant, but decided to sit at home and come to the clinic and she is at six months of gestation, you mentioned that teenage pregnancy do come late to book for antenatal care because of fear of her parents at home so she first had the pregnancy and not telling the parent or maybe sometimes she is not sure that she is pregnant but missed her period but do not know exactly what is happening in her body. You mentioned about the Zimbabweans who come from neighbouring countries and come here why she is an advance stage of pregnancy and book for the first time with us and it will fall

under late booking that the reason for coming here is that they are looking for better healthcare services compared to Zimbabwe . Another thing that you have mentioned that contribute to late booking is failure of Health Care workers to give health education to the pregnant women so that they must know when to book for Antenatal clinic, Some of the things that contribute to late booking for antenatal at those that are no longer on childbearing age and not accepting that they are pregnant, even tried to do TOP but failed when it comes to seeking medical assistant late during labour you mentioned that some women progressed themselves at home like those ones with big abdomen even when they were told that they will be referred to the hospital for delivery and she told herself that she will not go to the hospital she will progress herself at home and go to the clinic when she is about to give birth. We have primigravida who have lack of knowledge of true signs of labour so she will keep quiet checking whether is labour pains or it is the movement of the baby that is causing pains, so of late she will realise that it is labour pains and by the time when she reports to the caregiver it is already late and some arrives late due to lack of transportation. Regarding postnatal check up you mentioned that the mothers are complying to the given dates both for mothers and the newborn for immunisation, Maybe you can find that only one person out of 10 can be ignorant and not bring the baby for well baby clinic and even herself not wanting to follow postnatal check up dates and most of those are women that are working in the farms and then you mentioned the issue of exclusive breastfeeding that most of the women are complying though some do not, you will hear them saying that can I prepare soft porridge for my newborn are you find that the baby will come to the clinic Being aspirated due to soft porridge at home is encouraged by caregivers at home.

Question for phase 2 objective

Looking at all the challenges that you mentioned contributing to maternal and perinatal mortality, how can we resolve these problems?

P: It needs us all as healthcare workers to give health education to women all the time; although we can teach them in groups but all in all, let us teach them all the time to prevent maternal mortality.

R: Who are those women whom you said they must be taught?

P: Women of all ages groups because even when you have mentioned some become ignorant by nature and a teenager should be taught as well because when she grows up she will encounter that but if she acquires knowledge before she falls pregnant she will know what to do.

R: Who do you think should teach these women?

P: Community health workers because they are directly involved with the community. They move around homes and interact with the community so they can utilise that time to teach them if we can equip them here at the clinic they can be able to teach them and even as midwives we can still teach them more especially when woman come here for service or even when they are in groups we can still teach them and even the school health team they can go and pay a visit at schools and teach the women there at least it can limit the problem.

R: You mentioned that when these women have newborn, caregivers at home encourage them to feed the baby with soft porridge before six months, so in that matter what do you think can be done?

P: Yes, it is sometimes difficult to solve it in a way that you will find that the mother stays with caregivers only, husband is working far away from home for example in Johannesburg, she get pressure from the mother in law/give but if you have thought that woman and if she shared the information with the husband that the baby should be exclusively breastfed up to 6 months at least at least the couple can tell they check Eva then she'll understand as she also needs that kind of information and in the right way to avoid conflict in the family as the caregiver I will say this is my home you do as I say.

R: Do you think the caregivers at home can understand better if the daughter is telling her in law at home? Where as she is the one who can tell her what to do as the elder at home.

P: It will not be simple, it is a big problem that is why I can say that she must first share the information with her husband so as a joint team they can tell the caregiver in the right way and that she must understand that this time is not like the olden days, the baby can survive for six months on exclusive breastfeeding so it must help her understand okay give us they need to be taught so that they must not put pressure on the young mothers so could give us must be taught that exclusive breastfeeding is happening and it helps a lot to avoid pressure to them because they will end up following what the caregiver is saying. But we as health workers, community health workers who can move around the village can teach them for us we can teach them when they visit our healthcare facilities so that they must not put pressure on the mothers regarding the information that we give to her on how to take care of yourself and the baby in order to deal with this problem.

R: Ok, I understand you have mentioned that to deal with the problems that contribute to maternal mortality is when all women of all age groups to be taught and even the caregivers at home so that they must have an understanding of the care of the mother and the baby received from the clinic. You mentioned that the people who are responsible to teach them are nurses and community health workers and school health team can assist to disseminate the information to the relevant people. Did I take everything that you said that can improve the reduction of maternal mortality?

P: No, but I can say that let us involve one another as healthcare workers in teaching them though sometimes we face challenges of short staff and you find that you are willing to give Health Care location to the patient but failed due to time but if the department can assist us and hire more nurses at least it can help because others will be giving out health education while others will be busy with other routine at least it can help to fulfil the dream we have of reducing maternal and perinatal mortality. At least it can assist us.

R: Ok, thank you. Let me take this opportunity to say thank you for your participation in the study as it will help our community. When we go out yet we must sanitise SA condition of COVID-19 protocol. As I have told you before that there is no remuneration when participating in the study, like I said before to record our meeting, audio recorder still on I will stop it when we are done, let me remind you as I have told you before that your name will not appear anywhere in the study only the code and the information shared will appear in the study. Thank you again have a great day.

P: Thank you.

APPENDIX 6D: TRANSCRIPT FOR PREGNANT WOMEN AND BREASTFEEDING MOTHERS

TRANSCRIPT OF A PREGNANT WOMAN

OBJECTIVES: To explore and describe the kind of information elderly women give to pregnant women and breastfeeding mothers, which influences the utilisation of health care services.

R: Good morning.

P: Morning.

R: How are you?

P: I am fine, and how are you?

R: I am fine. Are you here for antenatal care?

P: Yes.

R: What is the number of pregnancies now?

P: It is the second one.

R: Ok like I said, my name is Makhado from the University of Venda. I came here for an interview regarding my research study on the improvement of maternal mortality. It is hot today.

P: Yes, it is hot.

R: Yes, but even if it is hot, I am grateful that you have agreed to be interviewed. Is it so?

P: Yes.

R: So before we start I want to remind you that we have followed covid-19 protocols as we have all put on our face masks, sanitized at the gate and maintaining social distance. I'd like to further remind you that there is no remuneration when participating in this study, your name will not appear anywhere in this study as I did not even ask your name only your information that you are about to share is needed, as per our agreement before an audio recorder is on to record all the information you are going to give so that I can be able to write down and not to miss any information provided. I am also glad that you have signed consent form for participating in this study at your own free will. Feel free to withdraw if you feel like you don't want to continue with the interview. Do you still want to continue with the interview?

P: Yes.

Question for Phase 1 objective

R: As a pregnant women staying with your mother-in-law, kindly share with me the care you receive from your mother-in-law at home.

P: When I go to report missed periods to my mother-in-law, she told me that I must delay starting to book for ANC because I must hide my pregnancy.

R: Ok, what happens if you book ANC early?

P: She said people can be so jealous in such a way that they may make me not to give birth to my baby or I get a miscarriage along the way.

R: Ok, tell me more.

P: I was told not to plait hair.

R: Ok.

P: Yes, because when I plait my hair I will also tie the baby (u vhofha nowa).

R: Hmm, what will happen if you tie the baby? (vhofha nowa).

P: She said it will be difficult for me to deliver the baby.

R: Ok, tell me more.

P: I must not sleep during the day.

R: Ok, what will happen if you sleep during the day.

P: Even the baby will sleep.

R: Hmm, the baby will sleep, what would happen then?

P: I will experience difficulties when giving birth and the baby will sleep when it is time to come out.

R: Hmm, do you still have some thing to share with me?

P: Yes she (my mother in law) told me not to eat too much foods because the baby will become big and my abdomen and end up giving birth through operation.

R: Ok, I understand, do you still have something to share with me?

P: No, that's all.

R: Ok, but if you think of something before we end this meeting feel free to share with me, ok.

P: Yes.

R: Ok, you mentioned that you were told not to book ANC early, you must hide your pregnancy because there are jealous people that can bewitch you, not to plait hair because i will be tying the baby, so i will take longer to give birth, you were told not to eat a lot of food because the abdomen and the baby will be big and end up giving birth through operation, you mentioned that you were told not to sleep during the day because the baby will also sleep when it is time to give birth. Is that all?

P: Yes.

Question for phase 2 objective

R: Ok, in each and everything that you mentioned are they working for you?

P: No is not a good thing because when I am pregnant like this I must book antenatal early so that nurses can assist me if there is something that is not right and prevent things that may come by the time of giving birth so that I can be assisted on, regarding the issue of not eating enough amount of food is not good because I must eat enough food for the purpose of the baby to have all types of nutrients so that when he/she is born looks healthy.

R: Ok, I understand so how can we resolve this issue to prevent maternal mortality?

P: Old women must be taught.

R: Who is supposed to teach them?

P: I think nurses should teach them.

R: Which nurses are you referring to?

P: Nurses who take care of the pregnant women (midwives).

R: Hmm, so where can they teach them?

P: I think they can teach old women the time they come to collect or take chronic medications at the hospital or clinic or they can be called at the chief's kraal and be taught there.

R: Hmm ok, what is it that you want to achieve after they have been taught?

P: When the old women are taught, they must support us (pregnant women) and must encourage us to book early for antenatal care so that we receive good care because it is where we get assisted.

R: Ok, I understand. Do you still have something to share with me.

P: No.

R: Ok, I understand let me not waste your time as you have come for BANC visit but before you go let me remind you that there is no remuneration for participating in this interview, and that your name will not be mentioned anywhere in this study voice recorder was used to collect all the information you were sharing.

P: Ok.

R: Do you still have something to share with?

P: No.

R: Ok, thank you, have a good day.

APPENDIX 7A: COMMENTS FOR VALIDATION OF TRAINING PROGRAMME FROM MIDWIVES

General comments by midwives

Midwives strongly agreed that there is a need for elderly women to be trained and empowered in the care of maternal and child health. Elderly women offer care to pregnant women using their indigenous knowledge which is based on traditional and cultural practices. These practices contribute to the delay in seeking medical assistance. Midwives indicated that there is a need for additional staff for them to provide continuous health education to the community in order to cab the barriers to utilising healthcare services. They further indicated that there is a need for the health department to liaise with the department of agriculture for pregnant women who are working on farms to be released to attend the antenatal clinic without losing their jobs

In conclusion, the manager promised delegates staff members to offer health awareness in the morning before they start with normal routine work as practised before. The manager further alluded that, community health workers would be delegated to conduct home visits to offer continuous health awareness to strengthen services offered at healthcare services to improve the reduction of maternal mortality rates.

APPENDIX 7B: COMMENTS FOR VALIDATION OF TRAINING PROGRAMME FROM ELDERLY WOMEN

General comments by elderly women

Elderly women agreed to be taught about maternal and child health, as caregivers of the pregnant women at home they were not formally trained but participated in taking care of pregnant women, breastfeeding mothers, and new-born. They acknowledged that the healthcare system considers them in taking care of pregnant women, breastfeeding mothers and child health. They appreciated being part of taking care of maternal and child health formally. They raise a concern about the issue of the use of indigenous knowledge based on traditional and cultural practices that should also be considered and included at the healthcare system as they believe that it works as it had worked for them. They further raise an issue of mutual respect for one another healthcare professionals used to undermine their knowledge. Elderly women indicated that they should be accepted for their use of indigenous knowledge and healthcare professionals should exercise the Ubuntu philosophy which states that a person is a person through others, and as such, they need to assist each other with dignity to take care of pregnant women for positive pregnancy outcomes.

APPENDIX 8: PROOF OF LANGUAGE EDITING

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Editorial Certificate

To Whom It May Concern,

This certificate confirms that the thesis entitled; **TRAINING PROGRAMME FOR ELDERLY WOMEN TO IMPROVE THE REDUCTION OF MATERNAL MORTALITY IN LIMPOPO PROVINCE, SOUTH AFRICA** by **MAKHADO CHRISTINAH LANGANANI** was edited by an expert English editor with a PhD. The following issues were corrected: grammar, spelling, punctuation, sentence structure, phrasing, and formatting.

Signed on behalf of NIM Editorial by:

A handwritten signature in black ink, appearing to be 'Dr N.I. Mabidi', written over a horizontal dotted line.

.....
Dr N.I. Mabidi
Founder & Chief Editor